Luddenham Advanced Resource Recovery Centre | SSD 10446

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Prepared for Coombes Property Group | 25 March 2025

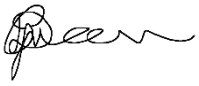

01

Luddenham Advanced Resource Recovery Centre

SSD 10446 | CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Prepared for Coombes Property Group
25 March 2025

PR371

	Prepared by	Reviewed by
Name	Amy Alessi	Darren Green
Company	Element Environment	Element Environment
Position	Environmental Consultant	Executive Director
Project Role	Lead Author	Project Director
Signature		
Date	19 December 2024	25 March 2025

DOCUMENT CONTROL

Revision	Date	Description	Prepared by	Reviewed by
0	14 August 2024	For Coombes Property Group review	Element Environment	Coombes Property Group
1	15 November 2024	Addressing CPG review	Element Environment	Coombes Property Group
2	3 December 2024	Incorporating additional CPG information	Element Environment	Coombes Property Group
3	19 December 2024	Addressing ER comments	Element Environment	Coombes Property Group
4	12 March 2025	Addressing DPHI comments	Element Environment	Coombes Property Group
5	25 March 2025	Addressing DPHI comments	Element Environment	Coombes Property Group

Contents

Tables

Figures

Appendices

CHAPTER 1
INTRODUCTION

1 INTRODUCTION

1.1 Overview

The Trustee for Coombes Family Trust No. 13 (Coombes Property Group), in partnership with KLF Holdings Pty Ltd (KLF), has received development consent to construct and operate the Advanced Resource Recovery Centre (ARRC or facility). The ARRC is located at 275 Adams Road, Luddenham, in the Liverpool local government area (LGA) . The facility is designed to receive and process up to 600,000 tonnes per annum (TPA) of non-putrescible general solid waste. This waste stream includes building and demolition waste and commercial and industrial waste, all of which will be recycled.

The State Significant Development (SSD 10446) was approved by the Department of Planning, Housing and Infrastructure (DPHI) on 13/08/2024.

The ARRC will operate under an Environment Protection Licence (EPL 21981) for resource recovery and waste storage.

The facility will be permitted to receive building and demolition, non-chemical manufacturing waste, wood waste, asphalt waste, soils, paper and cardboard, household waste, and office and packaging waste for recycling as value-added materials and intends to achieve a recovery rate of 85% from processing incoming materials.

1.2 Purpose of the CEMP

Element Environment Pty Ltd (Element) prepared the construction environmental management plan (CEMP) for the facility on behalf of Coombes Property Group (CPG).

This CEMP defines the environmental management principles, processes, procedures, and systems to be implemented throughout the construction of the ARRC.

This CEMP has been prepared by Element Environment's personnel listed on the cover page, who have over 10 years of experience in preparing construction environmental management documentation.

1.3 Document context

This CEMP has been developed following specific requirements prescribed in the Environmental Impacts Statements (EIS), Response to Submissions Reports (RtS), Conditions of Consent and Appendix 2 of Consent - Management & Mitigation Measures.

The environmental assessments can be viewed at the Major Project Planning Portal: https://www.planningportal.nsw.gov.au/major-projects/projects/luddenham-resource-recovery-facility.

The CEMP contains the following key components:

- A description of the construction activities to be undertaken on site, including construction program and timing.
- Environmental management framework, including key contacts, roles and responsibilities, and regulatory requirements.
- Environmental management commitments and responsibilities.
- Monitoring, inspections, and reporting requirements.
- Complaints management strategy.
- Environmental incident management strategy.

The following specialist management plans listed in C3 have been prepared to support this CEMP:

- Construction Traffic Management Plan (CTMP).
- Erosion and Sediment Control Plan (ESCP).
- Construction Noise and Vibration Management Plan (CNVMP).
- Construction Waste Management Plan (CWMP).
- Community Consultation Plan (CCP).
- Aboriginal Cultural Heritage Management Plan (ACHMP).
- Biodiversity Management Plan (BMP).

This plan applies to all aspects of environmental management during the ARRC construction as required under conditions C1 and C2 of SSD 10446.

Construction of the development must not begin until the Planning Secretary has approved this CEMP. CPG will make the approved CEMP available on the project website per condition C20 of SSD 10446. All construction activities must adhere to this CEMP.

1.4 Consultation

In accordance with SSD 10446, consultation was undertaken with regulatory authorities, local councils, Aboriginal representatives and relevant community members. Evidence of consultation related to the sub-plans of this CEMP is included in the relevant sub-plan.

1.5 Conditions of consent

The NSW Department of Planning assessed the ARRC development as a State Significant Development (SSD 10446) and granted development consent for the proposal on 13 August 2024 per section 4.38 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (refer to the development consent in Appendix M).

The consent conditions identify measures that are required to:

- prevent, minimise, and/or offset adverse environmental impacts
- set standards and performance measures for acceptable environmental performance
- require regular monitoring and reporting
- provide for the ongoing environmental management of the development.

The specific requirements of these consent conditions, along with where these requirements have been addressed within this CEMP, are listed in Table 1.1 Construction conditions of consent.

Table 1.1 Construction conditions of consent

Condition		CEMP reference
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT		
A1	In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise any material harm to the environment that may result from the construction and operation of the Development, and any rehabilitation required under this consent.	Section 3.1
EVIDENCE OF CONSULTATION		
A20	Where conditions of this consent require consultation with an identified party, the Applicant must: (a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval; and (b) provide details of the consultation undertaken including: (i) the outcome of that consultation, matters resolved and unresolved; and (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.	Appendix C – CNVMP Appendix F – ACHMP Appendix I – BMP Appendix J – CTMP
PROTECTION OF PUBLIC INFRASTRUCTURE		
A24	Before the commencement of construction of the Development, the Applicant must: (a) consult with the relevant owner and provider of services that are likely to be affected by the Development to make suitable arrangements for access to, diversion, protection and support of the affected infrastructure; (b) prepare a dilapidation report identifying the condition of all public infrastructure fronting the Development in Adams Road (including roads, gutters, footpaths, services and street trees) and the Western Sydney Airport aviation fuel farm; and (c) submit a copy of the dilapidation report to the Planning Secretary, Western Sydney Airport Corporation, DITRDCA and Council.	Noted
A25	Unless the Applicant and the applicable authority agree otherwise, the Applicant must: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by carrying out the Development; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the Development.	Noted
COMPLIANCE		
A29	The Applicant must ensure that all of its employees, contractors (and their sub-contractors) are made aware of, and are instructed to comply with, the conditions of this consent relevant to activities they carry out in respect of the Development.	Section 4
OPERATION OF PLANT AND EQUIPMENT		
A30	All plant and equipment used on site, or to monitor the performance of the Development, must be: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Appendix C – CNVMP
EXTERNAL WALLS AND CLADDING		

Condition		CEMP reference
A32	Prior to the issuing of: (a) any Construction Certificate relating to the construction of external walls (including the installation of finishes and claddings such as synthetic or aluminium composite panels); and (b) an Occupation Certificate, the Applicant must provide the Certifier with documented evidence that the products and systems proposed for use or used in the construction of external walls (including finishes and claddings such as synthetic or aluminium composite panels) comply with the requirements of the BCA.	Noted
UTILITIES AND SERVICES		
A34	Before the construction of any utility works associated with the Development, the Applicant must obtain relevant approvals from service providers.	Section 3.1.2
AIRPORT SAFEGUARDING		
Safety and Efficiency of Western Sydney Airport		
B1	The Development must not have any impact on the safety or efficiency of the operations of the Western Sydney International (Nancy-Bird Walton) Airport.	Section 3.1.5
TRAFFIC AND ACCESS		
Construction and Traffic Management Plan		
B13	Prior to the commencement of construction of the Development, the Applicant must prepare a Construction Traffic Management Plan for the Development to the satisfaction of the Planning Secretary. The plan must form part of the CEMP required by condition C2 and must: (a) be prepared by a suitably qualified and experienced person(s); (b) be prepared in consultation with Council and TfNSW; (c) detail the measures that are to be implemented to ensure road safety and network efficiency during construction; (d) detail heavy vehicle routes, access and parking arrangements; (e) include a Construction Driver Code of Conduct to: (i) minimise the impacts of earthworks and construction on the local and regional road network; (ii) minimise conflicts with other road users; (iii) minimise road traffic noise; and (iv) ensure truck drivers use specified routes; (f) include a program to monitor the effectiveness of these measures; and (g) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.	Appendix J – CTMP
B14	The Applicant must ensure that: (a) not commence construction until the Construction Traffic Management Plan required by condition B13 is approved by the Planning Secretary; and	Appendix J – CTMP

Condition		CEMP reference
	(b) implement the most recent version of the Construction Traffic Management Plan approved by the Planning Secretary for the duration of construction.	
Roadworks and Access		
B15	Prior to the commencement of construction of any works for the Development, the Applicant must submit design plans to the satisfaction of the relevant roads authority which demonstrate that the proposed accesses to the Development are designed to accommodate the turning path of a 26 metre B-double.	Noted
B17	Prior to the commencement of construction of the Development the Applicant must obtain approval from Council's Pedestrian, Active Transport and Traffic Committee for the removal of the existing 3-tonne heavy vehicle load restriction on Adams Road between Elizabeth Drive and The Northern Road, if required by Council.	Noted
Elizabeth Drive / Adams Road Intersection Works		
B19	Prior to the commencement of construction of the Elizabeth Drive / Adams Road intersection upgrade works, the Applicant must finalise and submit the detailed design of the intersection works to TfNSW for approval. The proposed intersection upgrade design must: (a) meet TfNSW and Council requirements; (b) be consistent with the Strategic Concept Design dated July 2021 prepared by Coombes Property Group and Indesco; (c) be in accordance with Austroads Guide to Road Design and Australian Codes of Practice; (d) be endorsed by a suitably qualified practitioner; (e) include a signage and line marking plan which includes signage prohibiting right turn movements from Elizabeth Drive to Adams Road; and (f) include detailed design plans and hydraulic calculations of any changes to the stormwater drainage system associated with the intersection upgrade.	Noted
Parking		
B21	The Applicant must provide sufficient parking facilities on-site, including for heavy vehicles and for site personnel, to ensure that traffic associated with the Development does not utilise public and residential streets or public parking facilities.	Appendix J – CTMP
NOISE		
Hours of Work		
B26	The Applicant must comply with the hours detailed in Table 1, unless the Planning Secretary has otherwise agreed to the carrying out of 24-hour operation on the site (see condition A13). Table 1 Hours of Work Earthworks and construction: Monday – Friday 7 am to 6 pm Saturday 8 am to 1 pm	Section 2.3 and Appendix C - CNVMP
B27	Works outside of the hours identified in condition B26 may be undertaken in the following circumstances: (a) works that are inaudible at the nearest sensitive receivers;	Section 2.3 and Appendix C - CNVMP

Condition		CEMP reference
	(b) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or (c) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.	
Construction Noise Limits		
B28	The Development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guideline (DECC, 2009) (as may be updated or replaced from time to time). All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures in the Appendix 2.	Appendix C – CNVMP
Construction Noise and Vibration Management Plan		
B29	The Applicant must prepare a Construction Noise and Vibration Management Plan for the Development to the satisfaction of the Planning Secretary. The Plan must form part of a CEMP in accordance with condition C2 and must: (a) be prepared by a suitably qualified and experienced noise expert; (b) be approved by the Planning Secretary prior to the commencement of construction of each stage of the Development; (c) describe procedures for achieving the noise management levels in EPA's Interim Construction Noise Guideline (DECC, 2009) (as may be updated or replaced from time to time); (d) describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers; (e) include strategies that have been developed with the community for managing high noise generating works; (f) describe the community consultation undertaken to develop the strategies in condition B28(e); and (g) include a complaints management system that would be implemented for the duration of the Development.	Appendix C - CNVMP
B30	The Application must: (a) not commence construction of any relevant stage of the Development until the Construction Noise and Vibration Management Plan required by condition B28 is approved by the Planning Secretary; and (b) implement the most recent version of the Construction Noise and Vibration Management Plan approved by the Planning Secretary for the duration of construction.	Appendix C - CNVMP
Road Traffic Noise		
B40	Prior to the commencement of construction of the Development, the Applicant must prepare a Driver Code of Conduct and induction training for the Development to minimise road traffic noise. The Applicant must update the Driver Code of Conduct and induction training for construction and operation and must implement the Code of Conduct for the life of the Development.	Appendix J – CTMP
VIBRATION		
Vibration Criteria		
B43	Vibration caused by construction and operation at any residence or structure immediately outside the site (including the Western Sydney Airport aviation fuel farm) must be limited to:	Appendix C – CNVMP

Condition		CEMP reference
	(a) for structural damage, the latest version of DIN 4150-3 (1992-02) *Structural vibration - Effects of vibration on structures* (German Institute for Standardisation, 1999); (b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: a technical guideline* (DEC, 2006) (as may be updated or replaced from time to time) (c) for vibration sensitive equipment, the generic vibration criterion (VC) curves set out in *Generic Vibration Criteria for Vibration-Sensitive Equipment* (Gordon, 1999).	
B44	Vibratory compactors must not be used closer than 30 metres from residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified in condition B43.	Appendix C – CNVMP
B44	The limits in conditions B43 and B44 apply unless otherwise outlined in a Construction or Operational Noise and Vibration Management Plan, approved as part of the CEMP required by condition C2 or the OEMP required by condition C5 of this consent.	Appendix C – CNVMP
AIR QUALITY		
Dust Minimisation		
B46	The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.	Section 3.1.3
B47	During construction of the Development, the Applicant must ensure that: (a) exposed surfaces and stockpiles are suppressed by regular watering; (b) all trucks entering or leaving the site with loads have their loads covered; (c) trucks associated with the Development do not track dirt onto the public road network; (d) public roads used by these trucks are kept clean; and (e) land stabilisation works are carried out progressively on site to minimise exposed surfaces.	Section 3.1.3
SOILS, WATER QUALITY AND HYDROLOGY		
Imported Soil		
B55	The Applicant must: (a) ensure that only VENM, ENM, or other material approved in writing by EPA is brought onto the site; (b) keep accurate records of the volume and type of fill to be used; and (c) make these records available to the Planning Secretary upon request.	Section 3.1.4
Erosion and Sediment Control		
B57	Prior to the commencement of any construction or other surface disturbance for the Development, the Applicant must install suitable erosion and sediment control measures on-site, in accordance with the relevant requirements of the Managing Urban Stormwater: Soils and Construction - Volume 1: Blue Book (Landcom, 2004) guideline and the Erosion and Sediment Control Plan included in the CEMP required by condition C2.	Appendix D - ESCP
B58	The Applicant must maintain the erosion and sediment control measures installed on the site in accordance with condition B57 for the duration of construction and any other surface disturbance for the Development.	Appendix D - ESCP

Condition		CEMP reference
Discharge Limits		
B59	The Development must comply with section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided for in an EPL.	Appendix D - ESCP
Stormwater Management System		
B60	Prior to the commencement of construction of the Development, the Applicant must finalise the detailed design of the stormwater management system for the Development. The system must: (a) be designed by a suitably qualified and experienced person(s); (b) be generally in accordance with the conceptual design in the EIS/RTS; (c) be in accordance with applicable Australian Standards; (d) ensure that the system capacity has been designed in accordance with Australian Rainfall and Runoff (Engineers Australia, 2016) and Managing Urban Stormwater: Council Handbook (EPA, 1997) guidelines; (e) ensure all water discharged to Oaky Creek is treated prior to discharge; (f) divert existing clean surface water around operational areas of the site; (g) direct all sediment laden water in overland flow away from the leachate management system; and (h) prevent cross-contamination of clean and sediment or leachate laden water.	Noted
WASTE MANAGEMENT		
Construction Waste Management		
B64	Prior to the commencement of construction of the Development, the Applicant must prepare a Construction Waste Management Plan for the Development to the satisfaction of the Planning Secretary. The Plan must form part of a CEMP in accordance with condition C2 and must: (a) detail the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations; and (b) be implemented for the duration of construction works.	Appendix E – CWMP
B65	The Applicant must: (a) not commence construction until the Construction Waste Management Plan is approved by the Planning Secretary. (b) implement the most recent version of the Construction Waste Management Plan approved by the Planning Secretary.	Appendix E – CWMP
Pests, vermin and priority weed management		
B80	The Applicant must: (a) implement suitable measures to manage pests, vermin and declared priority weeds on the site; and (b) inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or priority weeds are not present on site in sufficient numbers to pose an environmental hazard or cause the loss of amenity in the surrounding area.	Appendix I – BMP
HAZARDS AND RISK		

Condition		CEMP reference
Dangerous Goods		
B81	The quantities of dangerous goods stored and handled at the site must be below the threshold quantities listed in the Department's Hazardous and Offensive Development Application Guidelines – Applying SEPP 33 at all times.	Section 3.1.11
B82	Dangerous goods, as defined by the Australian Dangerous Goods Code, must be stored and handled strictly in accordance with: (a) all relevant Australian Standards; and (b) for liquids: (i) a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund. (ii) the NSW EPA's Storing and Handling of Liquids: Environmental Protection – Participants Manual.	Section 3.1.11
Bunding		
B84	The Applicant must store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's Storing and Handling of Liquids: Environmental Protection – Participants Manual (Department of Environment and Climate Change, 2007).	Section 3.1.11
BUSHFIRE		
B88	From the commencement of construction and for the life of the Development, the entire property must be managed as an inner protection area in accordance with the requirements of Planning for Bushfire Protection 2019.	Noted
B89	All new construction must comply with: (a) Section 3 and Section 9 (BAL FZ) of Australian Standard AS3959-2018 'Construction of building in bushfire-prone areas' or the relevant BAL-FZ requirements of the 'NASH Standard – Steel Framed Construction in Bushfire Areas' (incorporating amendment A – 2015); and (b) the construction requirements for BAL FZ in Section 7.5 of Planning for Bush Fire Protection 2019.	Noted
B90	Property access roads must comply with the requirements of Table 7.4a of Planning for Bush Fire Protection 2019.	Noted
B91	The provision of water, electricity and gas must comply with Table 5.3c of Planning for Bush Fire Protection 2019.	Noted
ABORIGINAL HERITAGE		
Statutory Requirements		
Aboriginal Cultural Heritage Management Plan (ACHMP)		
B94	Before the commencement of any clearing or construction works for the Development, the Applicant must prepare an ACHMP for the Development. The plan must form part of the CEMP required by condition C2 and must: (a) be prepared by a suitably qualified and experienced expert in consultation with the Registered Aboriginal Parties; (b) be submitted to the satisfaction of the Planning Secretary prior to construction of any part of the Development; (c) describe the measures to protect the AHIMS site #45-5-2280 in perpetuity; (d) describe the measures to salvage the artefacts in at AHIMS site #45-5-5360, including mapping, analysis and collection, and protect them in perpetuity;	Appendix F – ACHMP

Condition		CEMP reference
	(e) include: (i) details of an Aboriginal cultural heritage interpretation strategy; and (ii) the Management and Mitigation Measures included in Appendix 2 of this consent.	
B95	The Applicant must: (a) not commence construction until the ACHMP is approved by the Planning Secretary; and (b) implement the most recent version of the ACHMP approved by the Planning Secretary for the duration of the Development.	Appendix F – ACHMP
Unexpected Finds Protocol		
B96	If any item or object of Aboriginal heritage significance is identified on site: (a) all work in the immediate vicinity of the suspected Aboriginal item or object must cease immediately; (b) a 10 m buffer area around the suspected item or object must be cordoned off; and (c) Heritage NSW must be contacted immediately.	Appendix F – ACHMP
B97	Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the National Parks and Wildlife Act 1974.	Appendix F – ACHMP
HISTORIC HERITAGE		
Unexpected Finds Protocol		
B98	If any archaeological relics are uncovered during the course of the work, then all works must cease immediately in that area and work in the immediate vicinity of the Aboriginal item or object may only recommence subject to approval from the E&H group	Appendix F – ACHMP
BIODIVERSITY		
B99	Prior to the commencement of construction, the Applicant must purchase and retire the number and class of ecosystem credits and species credits set out in the BAM Biodiversity Credit Report in Appendix E of the Revised Biodiversity Development Assessment Report, prepared by EMM Consulting Pty Ltd dated 28 April 2021. The retirement of biodiversity credits must be carried out in accordance with the NSW Biodiversity Offsets Scheme of the *Biodiversity Conservation Act 2016*.	Noted
B100	Prior to commencement of construction, evidence of the retirement of credits in satisfaction of condition B97 must be provided to the Planning Secretary.	Noted
Biodiversity Management Plan		
B101	Prior to clearing for construction of the Development, the Applicant must prepare a Biodiversity Management Plan (BMP) for the Development in consultation with the E&H Group to the satisfaction of the Planning Secretary. The Biodiversity Management Plan must be approved by the Planning Secretary prior to the commencement of clearing for construction and must form part of the CEMP in accordance with condition C2. The Plan must include the following: (a) be prepared by a suitably qualified and experienced ecologist; (b) be prepared in consultation with the E&H Group;	AppendixI – BMP

Condition		CEMP reference
	(c) include: (i) a description of the environmental management framework that would be implemented to manage biodiversity impacts; (ii) details of who would be responsible for monitoring, reviewing, and implementing the plan; (iii) a program to monitor and report on the effectiveness of the above measures which includes tailored, quantitative performance measures and targets, completion criteria, monitoring and trigger points for corrective action which adhere to the SMART principles (specific, measurable, achievable, realistic, timely); and (iv) revegetation of the riparian zone of Oaky Creek.	
B102	The Applicant must: (a) not commence any clearing or construction of the Development until the Biodiversity Management Plan is approved by the Planning Secretary; and (b) implement the most recent version of the Biodiversity Management Plan approved by the Planning Secretary.	Appendix I – BMP
Unexpected Finds		
B103	Prior to the commencement of construction, the Applicant must prepare an unexpected contamination finds procedure to ensure that potentially contaminated material is appropriately managed. The procedure must form part of the of the CEMP in accordance with condition C2 and must ensure any material identified as contaminated is disposed of in accordance with the POEO Act and its associated regulations. Details of the final disposal location and the results of any associated testing must be submitted to the Planning Secretary prior to removal of the contaminated material from the site.	Section 3.1.11 Appendix B – Unexpected contamination finds protocol
COMMUNITY ENGAGEMENT		
B109	The Applicant must consult with the community regularly throughout the Development, including consultation with the nearby sensitive receivers identified on Figure 3 in Appendix 1 of this consent, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders.	Appendix H – CCP
Community Consultation Plan		
B110	The Applicant must prepare a Community Consultation Plan for the Development, to the satisfaction of the Planning Secretary. The Plan must: (a) be approved by the Planning Secretary prior to the commencement of site preparation works; (b) be implemented for the life of the Development, or as otherwise agreed by the Planning Secretary; (c) assign a central contact person to keep the nearby sensitive receivers regularly informed throughout the Development; (d) detail the mechanisms for regularly consulting with the local community throughout the Development, such as holding regular meetings to inform the community of the progress of the Development and report on environmental monitoring results; (e) detail a procedure for consulting with nearby sensitive receivers: (i) to schedule high noise generating works, vibration intensive activities or manage traffic disruptions during construction; and (ii) regarding operational noise and traffic management;	Appendix H – CCP

Condition		CEMP reference
	(f) include contact details for key community groups, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders; and (g) include a complaints procedure for recording, responding to and managing complaints, including: (i) email, toll-free telephone number and postal address for receiving complaints; (ii) advertising the contact details for complaints prior to and during operation, via the local newspaper and through on-site signage; (iii) a complaints register to record the date, time and nature of the complaint, details of the complainant and any actions taken to address the complaint; and (iv) procedures to resolve any disputes that may arise during the course of the Development.	
B111	The Application must: (a) not commence construction until the Community Consultation Plan is approved by the Planning Secretary; and (b) implement the approved Community Consultation Plan for the duration of the Development.	Appendix H – CCP
ENVIRONMENTAL MANAGEMENT		
Management Plan Requirements		
C1	Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:	
C1(a)	Detailed baseline data;	Supplementary Management Plans
C1(b)	Details of: i. the relevant statutory requirements (including any relevant approval, licence or lease conditions);	Section 1.6
C1(b)	ii. any relevant limits or performance measures and criteria; and	Section 6.7
C1(b)	iii. the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Section 6.7
C1(c)	A description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Section 3 Section 6 Supplementary Management Plans
C1(d)	a program to monitor and report on the: i. impacts and environmental performance of the development; and	Section 6 Supplementary Management Plans, and
C1(d)	ii. effectiveness of the management measures set out pursuant to paragraph (d) above;	Section 6 Supplementary Management Plans

Condition		CEMP reference
C1(e)	a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Section 6 Supplementary Management Plans
C1(f)	a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 6 and Section 7
C1(g)	a protocol for managing and reporting any: i. incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria);	Section 6.7
C1(g)	ii. complaint;	Section 6.4
C1(g)	iii. failure to comply with statutory requirements; and	Section 6 Supplementary Management Plans
C1(h)	a protocol for periodic review of the plan.	Section 7
C2	The Applicant must prepare a Construction Environmental Management Plan (CEMP) in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.	This plan
C3(a)	As part of the CEMP required under Condition C2 of this consent, the Applicant must include the following: Construction Traffic Management Plan (see Condition B28);	Appendix J – CTMP
C3(b)	Erosion and Sediment Control Plan;	Appendix D - ESCP
C3(c)	Construction Noise and Vibration Management Plan;	Appendix C – CNVMP
C3(d)	Construction Waste Management Plan; and	Appendix E – CEMP
C3(e)	Community Consultation and Complaints Handling;	Appendix H – CCP
C4	The Applicant must: (a) not commence construction of the development until the CEMP is approved by the Planning Secretary and provided to the EPA; and (b) carry out the construction of the development in accordance with the CEMP approved by the Planning Secretary and as revised and approved by the Planning Secretary from time to time.	Noted – this plan
Revision Strategies, plans and Programs		
C9	Within three months of: (a) the submission of a Compliance Report under condition C15; (b) the submission of an incident report under condition C11; (c) the submission of an Independent Audit under condition C17; (d) the approval of any modification of the conditions of this consent; or	Section 7

Condition		CEMP reference
	(e) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review, the strategies, plans and programs required under this consent must be reviewed, and the Planning Secretary must be notified in writing of the outcomes of any review.	
C10	If necessary to either improve the environmental performance of the Development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review required under condition C8, or such other timing as agreed by the Planning Secretary. *Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the Development.*	Section 7
Reporting and auditing		
Incident Notification, Reporting and Response		
C11	The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3.	Section 6
Non-Compliance Notification		
C12	The Planning Secretary must be notified in writing to the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.	Section 6
C13	A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Section 6
C14	A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	Section 6
Monitoring and Environmental Audits		
C19	Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing. *Note: For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the Development to provide data on compliance with the consent or on the environmental impact of the Development, and an "environmental audit" is a periodic or particular documented evaluation of the Development to provide information on compliance with the consent or the environmental management or impact of the Development*.	Section 6 Section 7
Access to information		
C19	At least 48 hours before the commencement of construction until the completion of all works under this consent, the Applicant must:	Section 5.2.9

Condition	CEMP reference
(a) make the following information and documents (as they are obtained or approved) publicly available on its website: i. the documents referred to in condition A2 of this consent; ii. all current statutory approvals for the development; iii. all approved strategies, plans and programs required under the conditions of this consent; iv. the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged; v. regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent; vi. a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; vii. a summary of the current stage and progress of the development; viii. contact details to enquire about the development or to make a complaint; ix. a complaints register, updated monthly; x. the Compliance Report of the development; xi. audit reports prepared as part of any Independent Audit of the development and the Applicant's response to the recommendations in any audit report; xii. any other matter required by the Planning Secretary; and (b) keep such information up to date, to the satisfaction of the Planning Secretary.	

1.6 Standards and legislation

1.6.1 Legislation and regulatory requirements

CPG is aware of the importance of complying with all applicable environmental measures, and where practicable, exceeds the minimum legislative and regulatory requirements. CPG's obligations include conditions of regulatory approvals as well as the generally applicable environmental acts and their subsidiary legislation. CPG and the project team monitor changes to environmental legislation to ensure compliance is maintained throughout the project's lifecycle.

1.6.2 Australian and New Zealand standards

The following standards relating to environmental management apply to the project:

- ISO 14001: 2015 Environmental Management Systems – Requirements with Guidance for Use.
- AS 1940: 2017 The Storage and Handling of Flammable & Combustible Liquids.
- AS 4326: 2008 The Storage and Handling of Oxidising Agents.
- AS 3780: 2008 The Storage and Handling of Corrosive Substances (similar standards exist for other classes of dangerous goods).
- AS/NZ 2436: 2010 Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites.
- AS/NZS 3833: 2007 The Storage and Handling of Mixed Classes of Dangerous Goods, in Packages and Intermediate Bulk Containers.
- AS 1055: 2018 Acoustics – Description and measurement of environmental noise.
- AS 2601-2001 The Demolition of Structures.
- AS 3959: 2018 Construction of building in bushfire-prone areas
- AS 4282:2019 Control of the Obtrusive Effects of Outdoor Lighting

1.6.3 Other standards

The following other standards relating to environmental management apply to the project:

- BS 7385-2: 1993 Evaluation and Measurement for Vibration in Buildings. Guide to Damage Levels from Groundborne Vibration.
- AS IEC 61672.1-2013 Electroacoustics – Sound level meters – Part 1: Specifications.
- DIN 4150-3:2016-12 Structural vibration – Part 3: Effects of vibration on structures (German Institute for Standardisation).
- Generic Vibration Criteria for Vibration-Sensitive Equipment (Gordon, 1999).

1.6.4 Guidelines

The following guidelines relating to environmental management apply to the project:

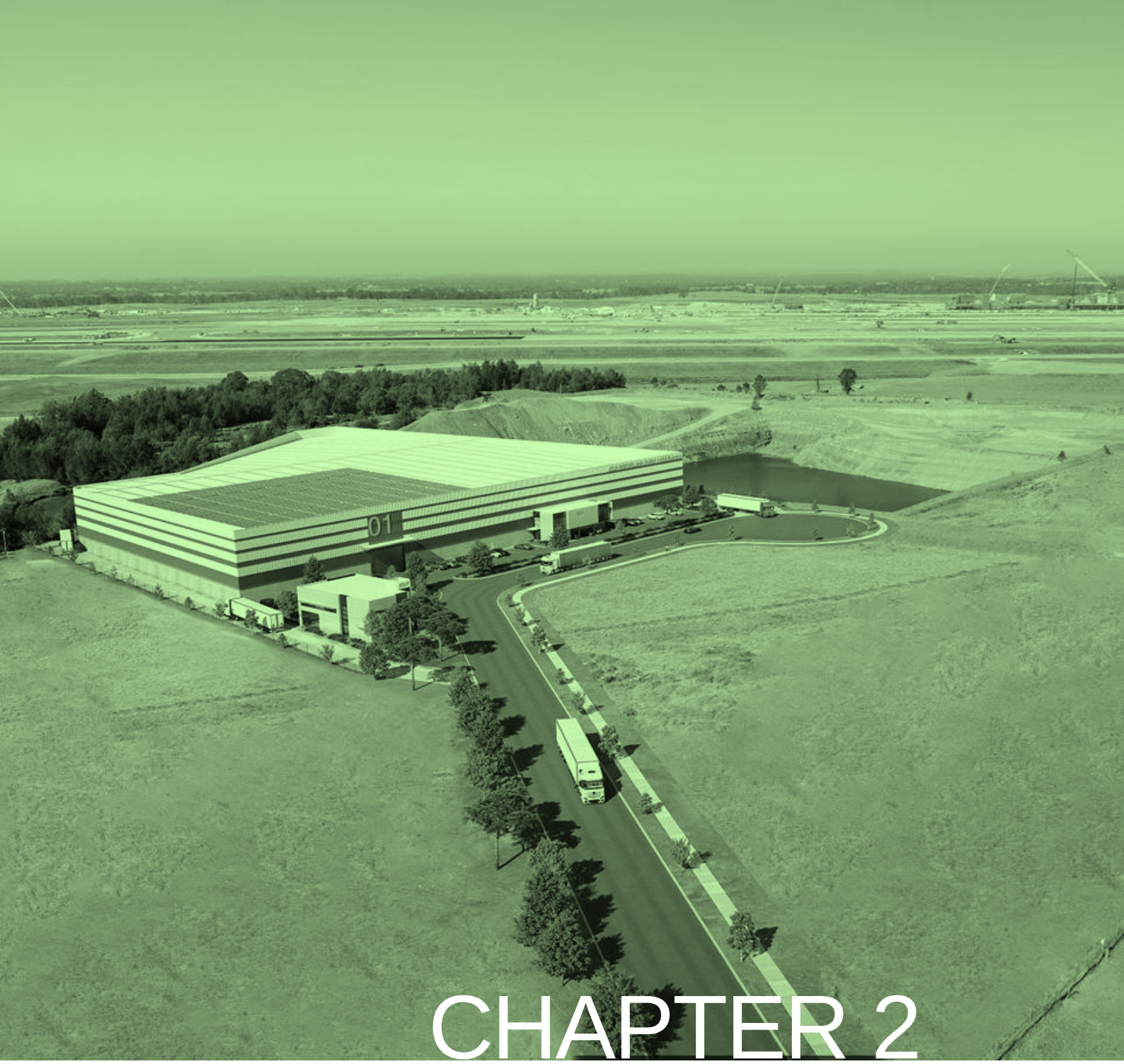
- Best Practice Erosion and Sediment Control (IECA, 2008)
- Australian Water Quality Guidelines for Fresh and Marine Waters (ANZECC & ARMCANZ 2018).
- Australian Rainfall and Runoff (Engineers Australia, 2019).
- Managing Urban Stormwater: Soils and Construction (Landcom, 2004, "Blue Book") guidelines.
- Waste Classification Guidelines (EPA, 2014).

- Interim Construction Noise Guideline (ICNG) (DECC 2009).
- Assessing Vibration: a technical guideline (DEC, 2006).

1.6.5 Airport Safeguarding Framework

The following guidelines relating to airport safeguarding framework applies to the project:

- Principles for National Airports Safeguarding Framework
- Guideline B: Managing Building Generated Windshear and Turbulence
- Guideline C: Managing Wildlife Strike Risk
- Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports



CHAPTER 2
PROJECT DESCRIPTION

2 PROJECT DESCRIPTION

2.1 Project Scope

The ARRC is a new development approved under State Significant Development (SSD) application number SSD-10466. The ARRC development footprint is approximately three (3) hectares of the total quarry site area of nineteen (19) hectares approved by Development Approval (DA) #315-7-2003.

The ARRC development includes the construction the following:

- Sealed driveway access from Adams Road.
- Internal sealed roads.
- Hard surfacing for the warehouse floor and external areas.
- An approx. 13,000 m2 metal clad fully enclosed warehouse, with an elevation of 16 m.
- Two site offices with the larger office located in the outside parking area and the smaller office located over the car parking area on the western side of the ARRC warehouse.
- Surface water drainage system.

The project also includes the installation of:

- Marked traffic and pedestrian areas.
- Approximately 47 parking spaces for staff and customers to the west and northwest of the ARRC warehouse.
- Four weighbridges: two inbound and two outbound weighbridges.
- Two ticket booths: one for incoming and one for outgoing vehicles.
- A wheel wash for outbound vehicles.
- Awnings attached to the warehouse at each warehouse entry/exit point.
- Separate tanks for firewater supply (above ground) and containment (below ground), and a fire suppression system.
- A stormwater management system, including rainwater tanks and an onsite detention basin.
- An on-site surface water management system consisting of a water treatment plant, onsite leachate and water detention areas.
- An on-site wastewater management system comprising a septic tank.
- Connection to services.
- Fencing and signage at the front of the site.
- Landscaping.

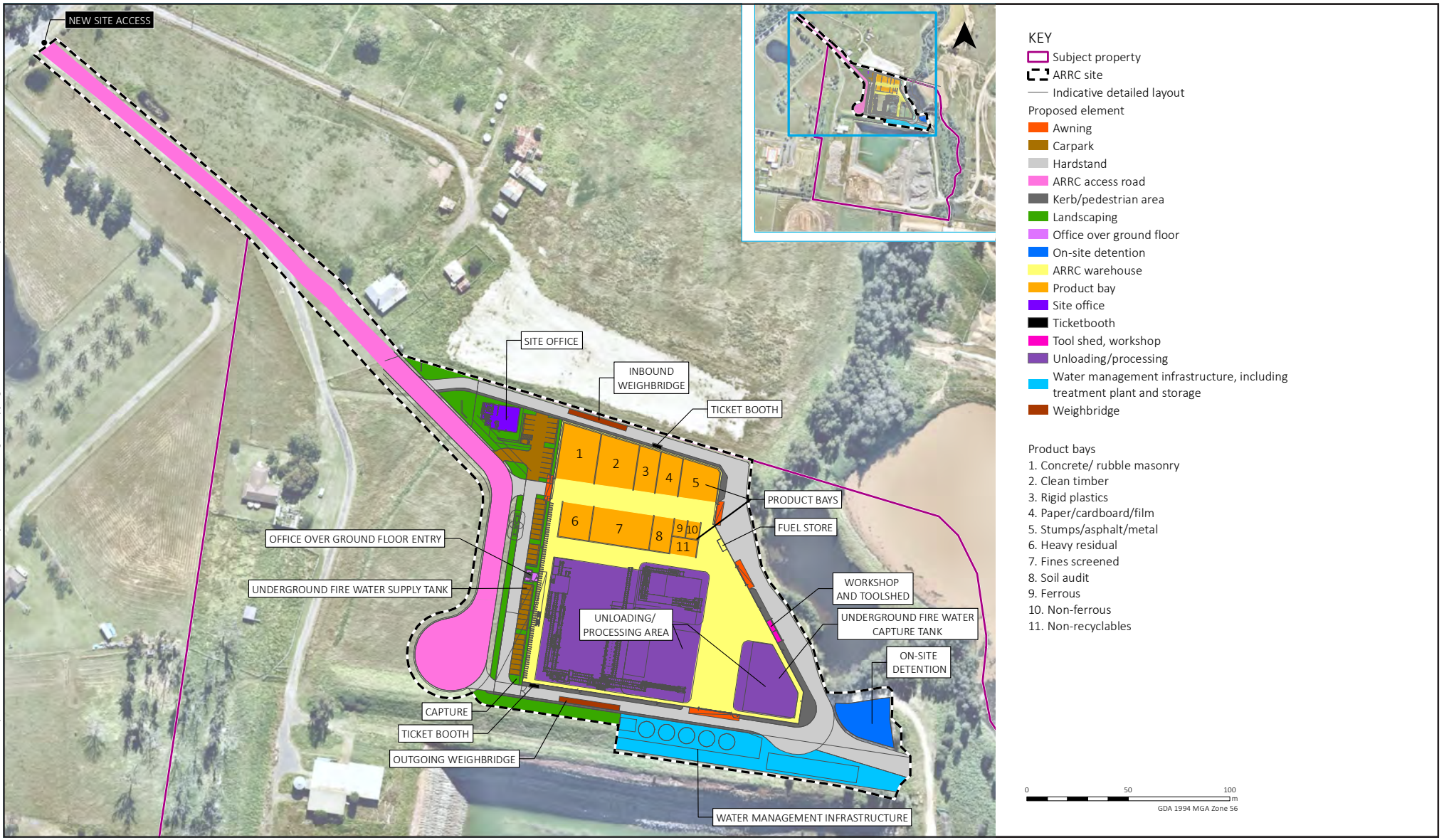
The construction phase outlined above is expected to take 12-18 months, subject to weather conditions and construction contingencies.

Once fully operational, the ARRC will receive and to process up to 600,000 tonnes per annum (TPA) of waste for recycling and dispatch up to about 540,000 TPA of recycled product

The proposed development is shown in Figure 1, local context in Figure 2, site access in Figure 3 and sensitive receivers in Figure 4.

Figure 1
Proposed development

Luddenham Advanced Resource Recovery Centre
CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN



Source: Luddenham ARRC Environmental Impact Statement, EMM, 2021

Figure 2
Local context

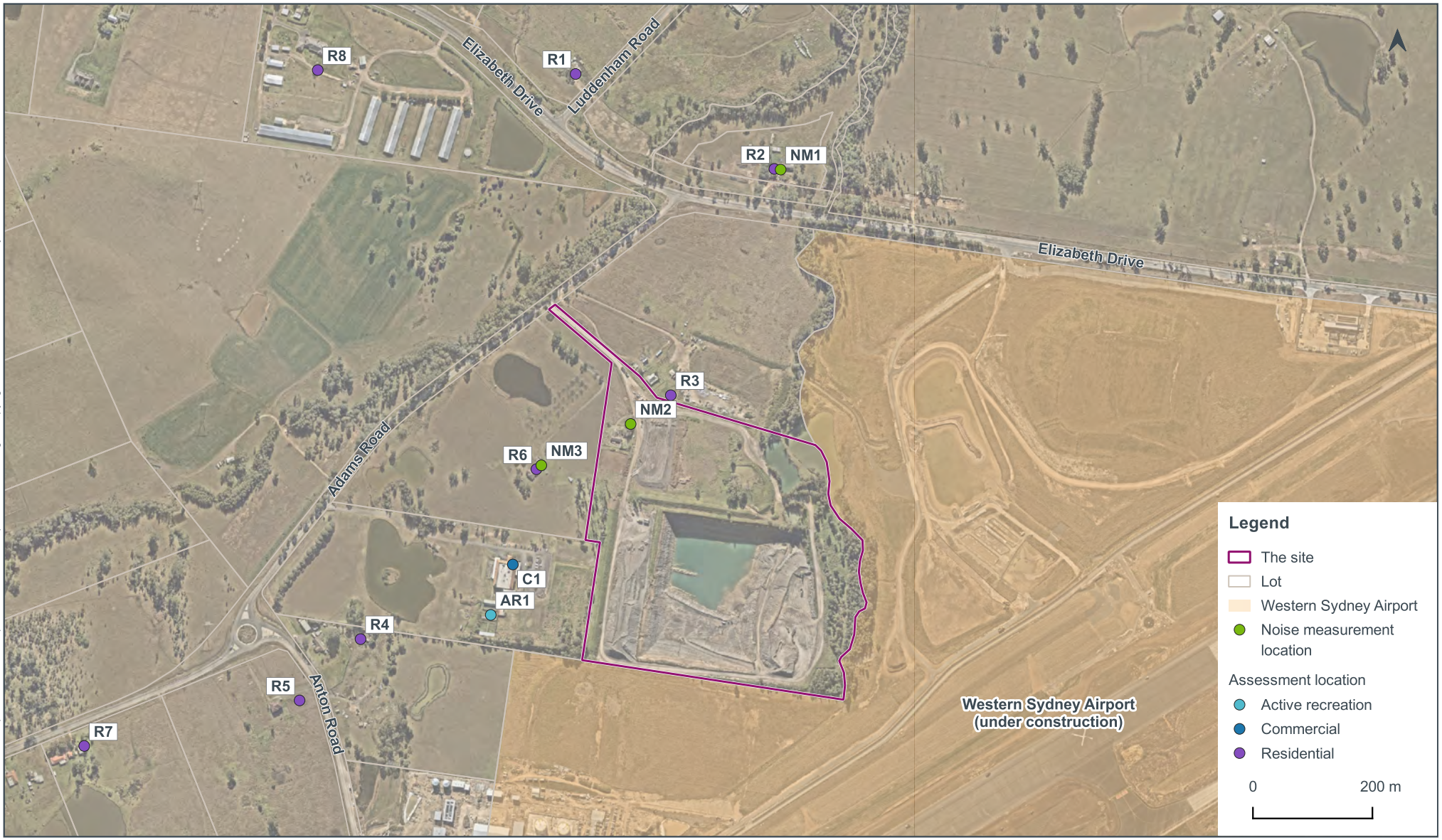
Luddenham Advanced Resource Recovery Centre
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Figure 3
Site access

Luddenham Advanced Resource Recovery Centre
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Figure 4
Sensitive receivers

Luddenham Advanced Resource Recovery Centre
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN



2.2 Construction timeframe

Construction of the ARRC is planned to start in April 2025 and will take approximately 18 months, finishing in June – July 2026 if there are no delays. The construction program has been developed to efficiently complete civil works, building construction, and plant installation in distinct stages. Table summarises key aspects of the construction stages

Table 2.1 The key phases and their approximate durations

Key Construction Phases	Proposed Duration	Expected Date of Commencement
Civil and Enabling works	50 days	April 2025
Structural Construction and Envelope	100 days	May 2025
Base Build Services and Fit-Out	60 days	October 2025
Process Equipment Installation and Commissioning	129 days	December 2025
External Works	80 days	January 2025
Intersection Upgrade works	129 days	June 2025

This staggered approach ensures critical civil and structural works are completed early, providing sufficient time for mechanical and plant installers to mobilise and carry out their specialist work without delay.

2.3 Construction hours

Construction of the ARRC will primarily be conducted during standard construction hours, in compliance with the approved hours detailed in the Condition B26 of the consent conditions as follows:

- Monday to Friday: 7:00am to 6:00pm.
- Saturday: 8.00 am to 1:00 pm; and
- No work on Sundays or public holidays.

Work outside of these standard hours may only be undertaken under specific circumstances, as outlined in Condition B27, including:

- Activities that are inaudible at the nearest sensitive receivers.
- Deliveries required outside standard hours by the NSW Police Force or other authorities for safety reasons.
- Emergency situations where work is necessary to prevent the loss of life, property, or to prevent environmental harm.

In these cases, out-of-hours work will be conducted following the noise management requirements specified in the *Interim Construction Noise Guideline* (DECC, 2009), with all feasible and reasonable noise mitigation measures implemented to minimise the potential impact on nearby sensitive receivers.

The construction hours will be provided to all staff and contractors in the induction. The movements of staff and contractors will be recorded for this project.

2.4 Construction site access

Approved vehicle access routes for the ARRC site have been established to facilitate the safe and efficient movement of both light and heavy construction vehicles. The construction vehicle route is illustrated in Figure 3.

For vehicles above 3 tonnes, no left turn from the ARRC site is permitted. Access to and from the site onto Adams Road will be restricted to left-in and right-out for vehicles above 3 tonnes until the section of Adams Road is updated, at which point the Council will lift the 3-tonne restriction.

2.5 Construction plant and equipment

Typical plant and equipment used during construction for bulk earthworks, concrete foundations, building structures and road upgrades have been included in Table 2.2.

Table 2.2 Construction plant and equipment

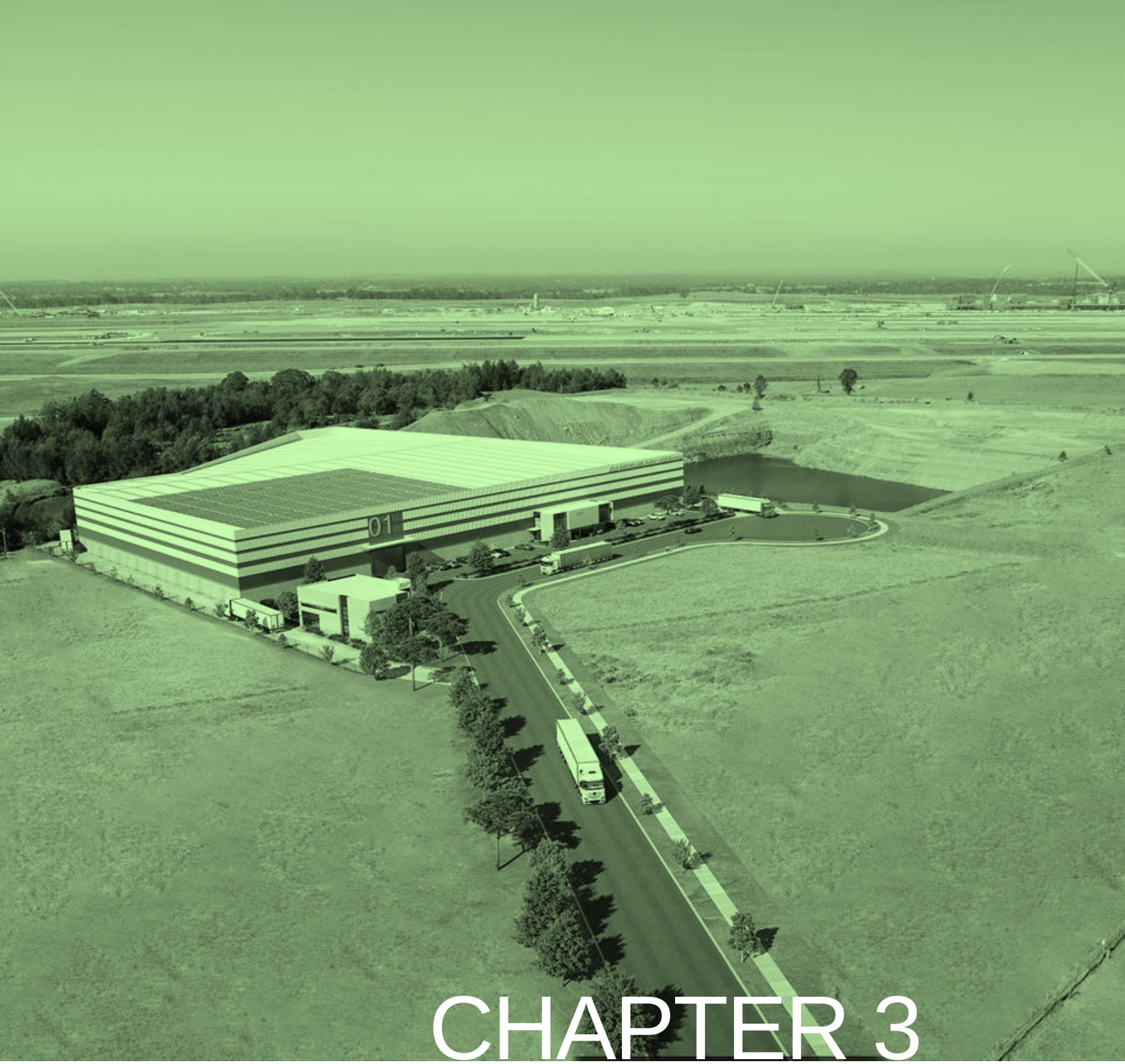
Stage of ARRC construction	Plant and equipment
Stage 1: Bulk earthworks	▪ Rigid tipper. ▪ Bobcat. ▪ Roller. ▪ Excavator. ▪ Scraper 631 ▪ Semi-trailer
Stage 2: concrete hardstand, lower walls, bunkers and roadway	▪ Concrete agitator. ▪ Concrete pump. ▪ Crane. ▪ Semi-trailer. ▪ Flatbed Hiab truck.
Stage 3: Building structure and erection	▪ Hand tool. ▪ Trucks. ▪ Crane. ▪ Elevated work platform.
Stages of construction road upgrades	
Road upgrade works – site on entry, the intersection of Adams Road and Elizabeth Drive and on Adams Road between Elizabeth Drive and Anton Road.	▪ Road trucks. ▪ Asphalt truck and tipper. ▪ Grader. ▪ Roller. ▪ Water cart

2.6 Construction contact details

The key construction contacts are in Table 2.3.

Table 2.3 Construction contacts

Role	Name	Contact details
Project Director	Pascal Bobillier	(02) 9389 6111 pascal@coombesgroup.com.au
Project Environment Manager	Elena Ivanova	(02) 9389 6111 elena@coombesgroup.com.au
Independent Environmental Representative	Richard Peterson	0429227775 Richard.peterson-trigalana@outlook.com
Contractor's Construction Manager	Marcus Cooper	0404 808 508
Contractor's Site Manager	Peter Free	0434 745 841



CHAPTER 3
ENVIRONMENTAL MANAGEMENT

3 ENVIRONMENTAL MANAGEMENT

3.1 Key environmental risks

A risk assessment was undertaken as part of the EIS (EMM, 2020), Appendix G (EMM 2020) to reflect the construction phase.

The potential environmental risk from the ARRC has been assessed in accordance with Australian/New Zealand Standard International Organisation for Standardisation 31000-2009 Risk Management – Principles and Guidelines (AS/NZS ISO 31000-2009) based on the implementation of management measures described in the EIS (EMM, 2020).

Two factors were considered in rating risk for each scenario: the potential consequences (i.e. the severity of the impact) and the likelihood that the impact will occur.

3.1.1 Environmental control map

A preliminary Environmental Control Map (ECM) has been developed and is included in Appendix K. The ECM identifies key environmental sensitivities within the project area, including endangered ecological communities, riparian corridors, threatened species habitats, and Aboriginal heritage items.

The construction contractor will regularly review and update the ECM to reflect any changes in site conditions, construction staging, and environmental control measures. Updates will be conducted to ensure compliance with environmental requirements and mitigation measures. Any changes to the ECM must be reviewed and approved by the Environmental Representative (ER) before implementation to ensure consistency with environmental controls and regulatory requirements.

At a minimum, the ECM must clearly show:

- Project boundaries and approved work locations.
- Endangered ecological communities and threatened species habitat.
- Watercourses, riparian corridors, and drainage paths.
- Cultural heritage protection zones and ‘No-go zones’.
- Location of key environmental controls, including:
    - Chemical storage areas and bunded refuelling locations.
    - Stabilised site access points, including rumble grids and washdown areas.
    - Erosion and sediment control structures (e.g., silt fences, sediment basins, diversion drains).
    - Stockpile and laydown areas.
    - Noise mitigation measures, such as acoustic barriers (if applicable).
    - Waste management facilities and designated storage areas.
    - Emergency spill kits and response equipment.

The ECM will be maintained in accordance with industry best practice, and its content will align with guidance from Transport for NSW (formerly RMS) on Environmental Control Maps, as well as Managing Urban Stormwater: Soils and Construction (Landcom, 2004) (‘The Blue Book’).

3.1.2 General

Table 3.1 lists the general environmental controls that will be implemented throughout the construction to minimise the potential for adverse impacts on the local environmental and surrounding receptors.

Table 3.1 General environmental management controls

Mitigation measures	Responsibility	Frequency
All reasonable and feasible measures will be implemented to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from construction.	Construction Contractor	Ongoing
The incidents and complaints management strategies in this CEMP will be implemented to ensure that any incidents and/or complaints relating to the construction activities are promptly and effectively addressed.		
Construction employees and contractors will be suitably inducted and trained prior to commencing any work on site.		
Construction will comply with section 120 of the POEO Act, which prohibits the pollution of waters.		
All licences, permits, approvals and consents will be obtained and maintained as required for the development.	Construction Contractor GPG	Ongoing

3.1.3 Air Quality

Dust will be generated during construction and mitigation measures outlined in Table 3.1 will be implemented to minimise air quality impacts.

Table 3.2 Environmental management measures for air quality

Mitigation measures	Responsibility	Frequency
Take all reasonable steps to minimise dust generated during the construction phase	Construction Contractor	Ongoing
Install, operate and maintain equipment in line with best practice to ensure that the development complies with all load limits, air quality criteria/air emission limits and air quality monitoring requirements as specified in the Protection of the Environment Operations (Clean Air) Regulation 2022.		
Exposed surfaces and stockpiles must be suppressed by regular watering or other alternative suppression method.		
Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.		
Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use. Avoid dry sweeping of large areas.		

Mitigation measures	Responsibility	Frequency
Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.		
Implement a wheel washing system or equivalent (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).		
Land stabilisation works will be carried out progressively to minimise exposed surface	Construction Contractor	Ongoing
Double handling of material will be avoided wherever possible.		

3.1.4 Soil and water management

The greatest erosion risk exists during the construction phase when potentially dispersive subsoils are exposed. A combination of amelioration of dispersive soils, source control of erosion and the use of Type D sediment basins will mitigate potential offsite impacts of this risk.

Due to the erosion risk associated with the presence of dispersive soils, priority will be given to the prevention, or at least minimisation, of soil erosion rather than allowing erosion to occur and relying on sediment control measures to trap and contain sediment and turbid runoff.

Erosion and Sediment Control Plan (ESCP) has been developed to identify the locations of erosion and sediment controls within the ARRC site. They are produced by a Certified Professional in Erosion and Sediment Control (CPESC). The ESCP will be developed and implemented prior to commencing activities where there is a risk of erosion and sediment loss. Progressive Erosion and Sediment Control Plans (PESCP's) will be prepared as required for the relevant work areas. The PESCP's illustrate the strategy for erosion and sediment control and provides detail on structures and controls to be implemented in concert with construction activities. Table 3.1 summarise key mitigation measures to be implemented to minimise soil and water risks. The ESCP is provided in Appendix D of this plan.

Table 3.3 Environmental management measures for water and soil

Mitigation measures	Responsibility	Frequency
All listed mitigation and management measures outlined in ESCP will be implemented throughout construction. These mitigation measures cover the following activities: ▪ Surface water, stormwater and drainage ▪ Dewatering procedure ▪ Stabilisation ▪ Soil disturbance minimisation measures. ▪ Diversion Drains ▪ Sequencing; and ▪ Retention of groundcover ▪ Restoration and stabilisation of the site progressively ▪ Inspection and maintenance.	Construction Contractor	Ongoing
A 40 m buffer zone along the eastern boundary of Oaky Creek will be maintained. No works are proposed within the buffer, which forms the waterfront land of the creek, as part of the ARRC.		
If the import of fill is required, only VENM, ENM, or other materials approved in writing by the EPA may be brought onto the site.	Construction Contractor	Ongoing
Keep accurate records of the volume and type of fill to be used		

3.1.5 Airport safeguarding

Western Sydney International (Nancy-Bird Walton) Airport (WSI) is expected to begin operations in late 2026 (source: https://wsiairport.com.au/makeWSIyours).

The ARRC construction phase is unlikely to impact operations of the WSA as it is anticipated that construction activities will be completed prior to the commencement of airport operations.

In response to concerns raised by the airport authorities, mitigation and management measures outlined in table 3.4 will be implemented.

Table 3.4 Environmental management measures for airport safeguarding

Mitigation measures	Responsibility	Frequency
All trucks entering or leaving the site will have their loads fully covered.	Construction Contractor	Ongoing
Lightweight packaging material will be stored in the provided containers with leads		
Misting water sprays to minimise the likelihood of lightweight materials from becoming airborne (soil stockpiles).		
Careful management of any food waste from contractors, ensuring disposal in bins that are inaccessible to birds and vermin		
Daily litter patrol of the site and regular cleaning of the site ground to ensure all waste appropriately stores and secured.		
All staff will undergo training on the risks associated with Foreign Object Debris (FOD) prior to starting work.		
Any new water features (such as the onsite water detention basin) will either be netted or have lines across it with moving flags on them to deter birds using it.		
The existing water management dam on the subject property will be netted or have lines for flags across it to deter birds from utilising it.		
The building designs, including on fences will ensure that they minimise areas for wildlife, especially birds, to use for breeding, roosting, or perching	Independent Certifier to review design of the ARRC and as built drawings following completion of construction.	Prior to construction Prior to occupation
Building design to ensure lighting does not distract pilots, conditions are recommended requiring development lighting to comply with the requirements of the NASF Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports.		

3.1.6 Noise and vibration management

The nearest residential building is R3 (285 Adams Road, derelict and unoccupied), approximately 40 m from ARRC construction activities and 14 m from the site access road. The next closest receiver, R2 (2111-2141 Elizabeth Drive), is 100 m from the Elizabeth Drive/Adams Road intersection upgrade, per the Addendum NVIA (EMM 2021). R6 (225 Adams Road) is 200 m from the ARRC construction area.

Construction noise levels from the project are predicted to exceed noise management levels (NMLs) at the closest assessment locations, with exceedances greater than 10dB above NML at R3 and R6.

The existing bund wall on the western boundary of the Luddenham Quarry site will be maintained and it will reduce noise impact associated with construction of ARRC to AR1 (Hubertus Club) and R6 receivers.

Road upgrades near R2 (100 m) and ARRC construction near R6 (200 m) pose no structural risk due to the significant buffers.

The WSA aviation fuel farm, located approximately 546 m northeast of the ARRC construction site, is the only identified structure potentially containing vibration-sensitive equipment. As detailed in the EMM correspondence to the Department dated 7 April 2022, a comprehensive vibration assessment was conducted using best-practice standards, including *Generic Vibration Criteria for Vibration-Sensitive Equipment* (Gordon, 1999), as required by Condition B43(c).

The assessment accounts for the fuel farm's distance, the type of construction plant (e.g., <200 kN rollers), and vibration attenuation, confirming negligible risk.

Table 3.6 summarise key mitigation measures to be implemented to minimise noise and vibration impacts. A construction noise and vibration management plan (CNVMP) has been prepared for the project in Appendix C.

Table 3.5 Environmental management measures for noise and vibration impacts.

Mitigation measures	Responsibility	Frequency
Per Condition B44, vibratory works within 30 m are prohibited unless monitoring confirms compliance with vibration limits provided in the CNVMP. As R3 is 14 m from the site access road, within the 30 m threshold, vibration monitoring will be conducted for any vibratory works closer than 30 m to ensure compliance with B43 criteria. If distances cannot be maintained, alternative methods (e.g., smaller rollers, non-vibratory modes) will be adopted.	Construction Contractor	Ongoing
All listed mitigation and management measures outlined in the CNVMP will be implemented throughout construction. These mitigation measures cover the following activities: ▪ Project Planning ▪ Scheduling for High Noise or Vibration Generating Works ▪ Training ▪ Plant and Equipment Source Mitigation ▪ Screening ▪ Community Consultation ▪ Monitoring		

3.1.7 Traffic Management

The CTMP has been developed based on the conceptual CTMP presented in the EIS TIA (refer to Appendix L of the EIS) to set out the overall traffic management resources, processes and procedures for the management of traffic and transport during construction of the ARRC.

All management and mitigation measures relating to proposed works and staging outlined in Section 3 of the CTMP will be implemented throughout construction.

The relative construction stage impacts to the traffic capacity or amenity on Adams Road, or the broader network will be minimal. Table 3.6 summarises key mitigation measures to be implemented to minimise traffic impacts. The CTMP is provided in Appendix J of this plan.

Table 3.6 Environmental management measures for traffic impacts.

Mitigation measures	Responsibility	Frequency
Until the load limit is lifted along the whole of Adams Road, ARRC-related heavy vehicles will only access/depart the ARRC using the norther section of Adams Road (no left turn to Admas Road).	Construction Contractor	Until the load limit is lifted by the Council
All management and mitigation measures relating to proposed works and staging outlined in the CTMP will be implemented throughout construction. These mitigation measures cover the following activities: ▪ Site Access ▪ Construction Vehicle Traffic Generation ▪ Impacts on the Surrounding Network ▪ Vehicle Management ▪ Contractor and Heavy Vehicle Parking ▪ Work Zones ▪ Traffic Control ▪ Driver Awareness and Code of Conduct ▪ Worker Induction	Construction Contractor	Ongoing

3.1.8 Biodiversity Management

The approved construction works include the following impacts to biodiversity:

- remove 0.42 hectares of native vegetation comprising:
  - 0.11 ha is BC Act listed Cumberland Plain Woodland CEEC (PCT 849) and
  - 0.31 ha is BC Act listed Swamp Oak Floodplain Forest EEC (PCT 1800).

The previous quarry operator has carried out the required revegetation of the Oaky Creek riparian zone. The revegetation within the riparian corridor has been fenced to prevent access and exclude inadvertent impacts from current quarrying operations.

Table 3.7 summarises key mitigation measures to be implemented to minimise impact to flora and fauna. The BMP describes procedures and controls that will prevent or minimise impacts on vegetation and fauna species (refer to Appendix I).

Table 3.7 Environmental management measures for biodiversity impacts.

Mitigation measures	Responsibility	Frequency
The riparian zone will be established as a No Go Zone prior to construction works.	Construction Contractor	Ongoing
A tree protection zones (TPZs) will be set up around all trees to be retained within and immediately adjacent to the disturbance footprint.		
TPZs are to be established in accordance with the Australian Standard As 4970-2009 Protection of trees on development sites (Standards Australia Committee 2009).		
Native vegetation cleared should be mulched and stockpiled for re-use during any rehabilitation works.		
Large hollow-bearing trees and limbs should be retained as hollows for placement into rehabilitated areas or retained vegetation.		
Avoid direct impacts to Oaky Creek riparian corridor.		
Minimise impacts to PCT 849, by avoiding areas outside the road corridor		

Mitigation measures	Responsibility	Frequency
Minimise impacts to PCT 1800, by only impacting on small areas of the fragmented habitat and vegetation present within the road corridor		
Minimise impacts to PCT 1800, by avoiding impacts to the vegetation on the south-western boundary.		

3.1.9 Aboriginal Heritage Management

One registered AHIMS site (#45-5-2280), an artefact scatter, within the subject property. The location of AHIMS site #45-5-2280 is approximately 40 m from the works boundary, within the Oaky Creek riparian corridor. The item is currently protected by exclusion fencing that will be maintained by the construction contractor as a No-Go area.

The test excavation determined that the site contains a low-density and uneven artefact scatter, now recorded as Luddenham Quarry 1 (LQ1 – AHIMS #43-4-5360). Following consultation, RAPs requested to retain the salvaged artefacts, and DPIE supported this request (ref: DOC21/448004-7, dated 16/06/2021). The artefacts (#43-4-5360) were removed by RAPs from the site and retained at the GLALC Keeping Place in 2021.

In the event that unexpected Aboriginal objects, sites, or places are discovered during the earthworks, the unexpected finds protocol detailed in the ACHMP will be implemented by the construction contractor. The ACHMP is provided in Appendix I.

3.1.10 Waste Management

Western Sydney International (Nancy-Bird Walton) Airport (WSI) is expected to begin operations in late 2026 (source: https://wsiairport.com.au/makeWSIyours).

The ARRC construction phase is unlikely to impact operations of the WSA as it is anticipated that construction activities will be completed prior to the commencement of airport operations.

Construction waste generated during the development of the ARRC may contain a variety of construction and demolition (C&D) materials, recyclable materials and a small proportion of residual waste. All residual waste generated on-site will be collected, transported and disposed of at a licenced landfill facility.

Active site management during construction will ensure that all waste and recyclable materials are managed appropriately. General waste bins will also be allocated on-site and collected when needed by an appropriate waste contractor.

The mitigation measures in Table 3.8 will be implemented to minimise the potential for adverse impacts as a result of waste generated during construction. For further details on construction waste management and waste strategies are outlined CWMP in Appendix E.

Table 3.8 Environmental management measures for waste impacts

Mitigation measures	Responsibility	Frequency
All listed mitigation and management measures outlined in the WMP will be implemented throughout construction. These mitigation measures cover the following activities: ▪ Construction waste type ▪ Waste Storage, Handling, Transport and Disposal ▪ Hazardous Waste ▪ Waste Monitoring	Construction Contractor	Ongoing

Mitigation measures	Responsibility	Frequency
Suitable measures will be put in place to manage pests and vermin including maintaining general cleanliness on site and of waste storage areas to prevent the occurrence of vermin issues, and arranging appropriate controls, if necessary, e.g. traps.		
Waste must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties.		
All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.		
Careful management of any food waste from contractors, ensuring disposal in bins that are inaccessible to birds and vermin		
Daily litter patrol of the site and regular cleaning of the site ground to ensure all waste appropriately stores and secured.		
All staff will undergo training on the risks associated with Foreign Object Debris (FOD) prior to starting work.		

3.1.11 Hazards and risks

A small volume of dangerous substances will be used during construction, including liquid hydraulic oils and fluids for plant and equipment operation, paint, and other chemicals required for construction. These chemicals are expected to be below screening thresholds and, therefore, not considered to be potentially hazardous.

The environmental controls that will be implemented to minimise the potential for environmental incidents relating to the hazardous goods and contamination are presented in Table 3.9.

Table 3.9 Environmental management measures for hazards and risks

Mitigation measures	Responsibility	Frequency
During construction, dangerous goods will be stored, handled, and managed in compliance with all relevant Australian laws, standards, and guidelines to ensure environmental and workplace safety. All dangerous goods stored on-site will be: ▪ Kept below threshold quantities that would trigger additional hazardous development controls per conditions B81 and B82 of the development consent. ▪ Categorized and managed in compliance with the latest version of the Australian Dangerous Goods Code (ADG Code).	Construction Contractor	Ongoing
Chemicals will be stored in an appropriately ventilated and secure storage area, in accordance with relevant Australian Standards and the NSW EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Manual*.		
All chemicals, fuels, and oils will be stored within a bunded area with a capacity of at least 110% of the largest single stored container to ensure any potential leaks or spills are contained, minimising impacts on surface water and fire risks.		

Mitigation measures	Responsibility	Frequency
Bulk liquid storage areas will be equipped with appropriate spill containment systems, and spill response kits will be readily available near storage areas. The quantities of hazardous materials stored or used will be minimised as far as practicable.		
Diesel mobile plant and equipment will be refuelled on-site via mobile refuelling trailers when required. To eliminate the potential risk of stormwater contamination, refuelling will only take place at distances greater than 50 metres from the nearest stormwater pit.		
Machinery servicing will be undertaken at approved premises off-site where possible, with on-site servicing occurring only with appropriate spill control measures in place or within established or temporary bunded areas.		
An adequate record or log of all environmentally hazardous chemicals received, used, and/or disposed of will be maintained. A Safety Data Sheet (SDS) register will be kept onsite and be readily accessible for all hazardous chemicals transported, handled, or applied.		
An unexpected finds protocol (Appendix B of this plan) will be implemented to manage any contamination which may be encountered during development works at the ARRC site.	Construction Contractor	Ongoing

3.1.12 Fire Safety and Emergency

The environmental controls that will be implemented to minimise the potential for environmental incidents relating to fire are presented in Table 3.10.

Table 3.10 Fire safety and emergency objectives and targets

Mitigation measures	Responsibility	Frequency
In the event of emergency, the contact details in section 6.2.2 will be contacted.	Construction Contractor	In the event of an emergency
Emergency vehicle access to and from the Site will be available at all times during construction.	Construction Contractor	Ongoing
Cutting, welding, grinding or other activities likely to generate fires will not be undertaken in the open on days when a total fire ban is proclaimed, unless an exemption is granted by the relevant Fire Service.	Construction Contractor	Ongoing
When there is a risk of fire being caused by work such as welding, thermal or oxygen cutting, heating or other fire producing or spark producing operations or when burning off is proposed, training will be provided to all personnel in fire prevention, fire safety and basic firefighting skills.	Construction Contractor	As required
Appropriate firefighting equipment will be provided as required for the safety of persons and property.	Construction Contractor	Before commencing construction and ongoing
Fire extinguishers will be located at work locations where hot work is being undertaken or flammable gases are stored.	Construction Contractor	Ongoing
Construction plant will be fitted with fire extinguishers, as required/appropriate.	Construction Contractor	Ongoing

Mitigation measures	Responsibility	Frequency
Waste material will not be burnt on site and no fires of any kind will be lit on site.	Construction Contractor	Ongoing

3.2 Roles and Responsibilities

The Construction Contractor will review, implement and monitor this CEMP and specialist management plans together as an integrated suite of documents. The key personnel responsible for environmental management during the construction phase are listed in Table 3.1.

Table 3.11 Roles and responsibilities objectives and targets

Role	Responsibilities
Independent Environmental Representative (ER)	▪ Act as the primary point of independent environmental oversight and provide advice to the Planning Secretary, the proponent (represented by the Project Principal and Principal's Environmental and Development Manager), and the contractor (Construction and Site Managers) to ensure compliance with environmental obligations. ▪ Provide written advice and statements to confirm that environmental management plans, sub-plans, and related documents meet the conditions of consent and are ready for implementation.
Project Principal	▪ Overall responsibility for environmental management and compliance with SSD 10446 and relevant legislation; ▪ Liaise with the Proponent to keep them informed of the project's progress; ▪ Record, notify, investigate and respond to any environmental incidents and, where necessary, develop and implement corrective actions; ▪ Consult and engage with any subcontractors or interfacing contractors regarding the environmental management of the Site; ▪ Provide Project Environmental Representative (ER) with all documentation requested by the ER for the ER to perform their functions specified below and a copy of any assessment carried out by the Applicant of whether the proposed work is consistent with the consent (which must be provided to the ER before the commencement of the subject work).
Project's (Principal's) Environmental Manager	▪ Provide the Principal advice and guidance relating to Environmental reporting responsibilities associated with the development; ▪ Provide the Principal advice and guidance relating to environmental management and compliance with SSD 10446 and relevant legislation; ▪ Assist the Principal in providing the ER with all documentation requested by the ER for the ER to perform their functions; ▪ Provide guidance for the reporting, notification, investigation and response to any environmental incidents and, where necessary, develop and implement corrective actions; ▪ Providing advice to the Principal in relation to any subcontractors or interfacing contractors regarding the environmental management of the Site.
Contractor's Construction Manager	▪ All the responsibilities attributed to the Construction Contractor throughout this CEMP. ▪ Environmental reporting responsibility associated with the development. Ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an incident and/or non-compliance.
Contractor's Site Manager	▪ All the responsibilities attributed to the Construction Contractor throughout this CEMP. ▪ Conduct daily and weekly site inspections to ensure compliance with environmental management requirements and identify potential issues. ▪ Oversee subcontractor activities to ensure compliance with environmental plans and risk assessments. ▪ Report all environmental incidents, non-compliances, and issues to the Construction Manager and Principal's Environmental and Development Manager as they occur.

Role	Responsibilities
	▪ Maintain site-level documentation related to environmental compliance, including inspection records, audit findings, and incident reports. ▪ Ensure environmental issues are raised and addressed during toolbox meetings and site briefings. ▪ Assist in environmental incident investigations and implement corrective actions as directed by the Construction Manager. ▪ Provide administrative support for environmental reporting, including updates to training records, audit results, and incident investigations. ▪ Act as the primary site-level liaison with the Construction Manager for addressing and resolving environmental issues.
Communications and Community Liaison Representative or Nominee	▪ Lead and manage the community involvement activities, including liaison with property owners and key stakeholders; ▪ Be the primary daily contact to the public handling of enquiries / complaints management / interface issues;
All employees, contractors and subcontractors	▪ Ensure familiarity, implementation and compliance with this CEMP and appended management plans; ▪ Support the Proponent's commitment to sustainability, environmental management and compliance; ▪ Work in a manner that will not harm the environment or impact on surrounding receptors; ▪ Report all environmental incidents, non-compliances and complaints to the Project Manager without delay; ▪ Immediately notify the Contractor's Project Manager of any hazard or potential hazard that may result in an incident and/or non-compliance, regardless of the nature or scale; ▪ Take immediate action (where it is safe to do so) to prevent, stop, contain and/or minimise any adverse impact associated with an incident and/or non-compliance; and ▪ Report any inappropriate construction practices and/or environmental management practices to the Project Manager without delay.

3.3 Objectives and targets

The objectives and targets in Table 3.12 aim to ensure that identified and potential environmental impacts that could occur during works are within acceptable and agreed limits. This is achieved through pro-active environmental management planning prior to carrying out work.

Table 3.12 Objectives and targets

Focus area	Objective	Target
Legal Compliance	▪ Compliance with all legal requirements. ▪ Construct the project in accordance with environmental approvals.	▪ No regulatory infringements, including PINS and prosecutions. ▪ 100% compliance with statutory approvals.
Monitoring	Complete internal environmental inspections weekly.	Complete 100% of scheduled environmental inspections.
Reporting	Promote a positive reporting culture. Ensure all environmental observations, hazards and near misses and incidents are recorded. Ensure actions are closed out by the nominated due dates.	0 actions arising from incidents overdue >30 days.
Planning	Ensure that workers are provided with regular and up-to-date information on environmental aspects for the duration of the project.	Review the content of the management plans every six months, and update if changes are warranted. Plans should also be reviewed in the event of an incident or non-compliance.

Focus area	Objective	Target
Risk Management	Ensure that workers are familiar with hazards and risks associated with the execution of the scope of work (work under contract).	Work is conducted in accordance with the CEMP, sub-plans and conditions of consent.
Consultation	Ensure that workers are regularly consulted on matters that affect the environment.	Conduct pre-start meetings and toolbox meetings.
Training	Ensure workers are provided with training to enable work practices to be undertaken that are safe and minimise risk to the environment.	Everyone working on the project has completed the project induction and site-specific training (where applicable).

3.4 Risk management

Throughout the project, risks and opportunities will be identified, assessed, and controlled using various tools.

The identification of environmental activities, the respective potential impact on the environment, and measures to avoid, mitigate and manage the potential environmental impacts will be determined following a review of the:

- Contract and its associated environmental conditions.
- Development consent conditions (Appendix A).
- Environmental impact statement and response to submissions; and
- Actual scope of work and consideration of all applicable legislation, standards, and other conditions.

3.5 Subcontractor management

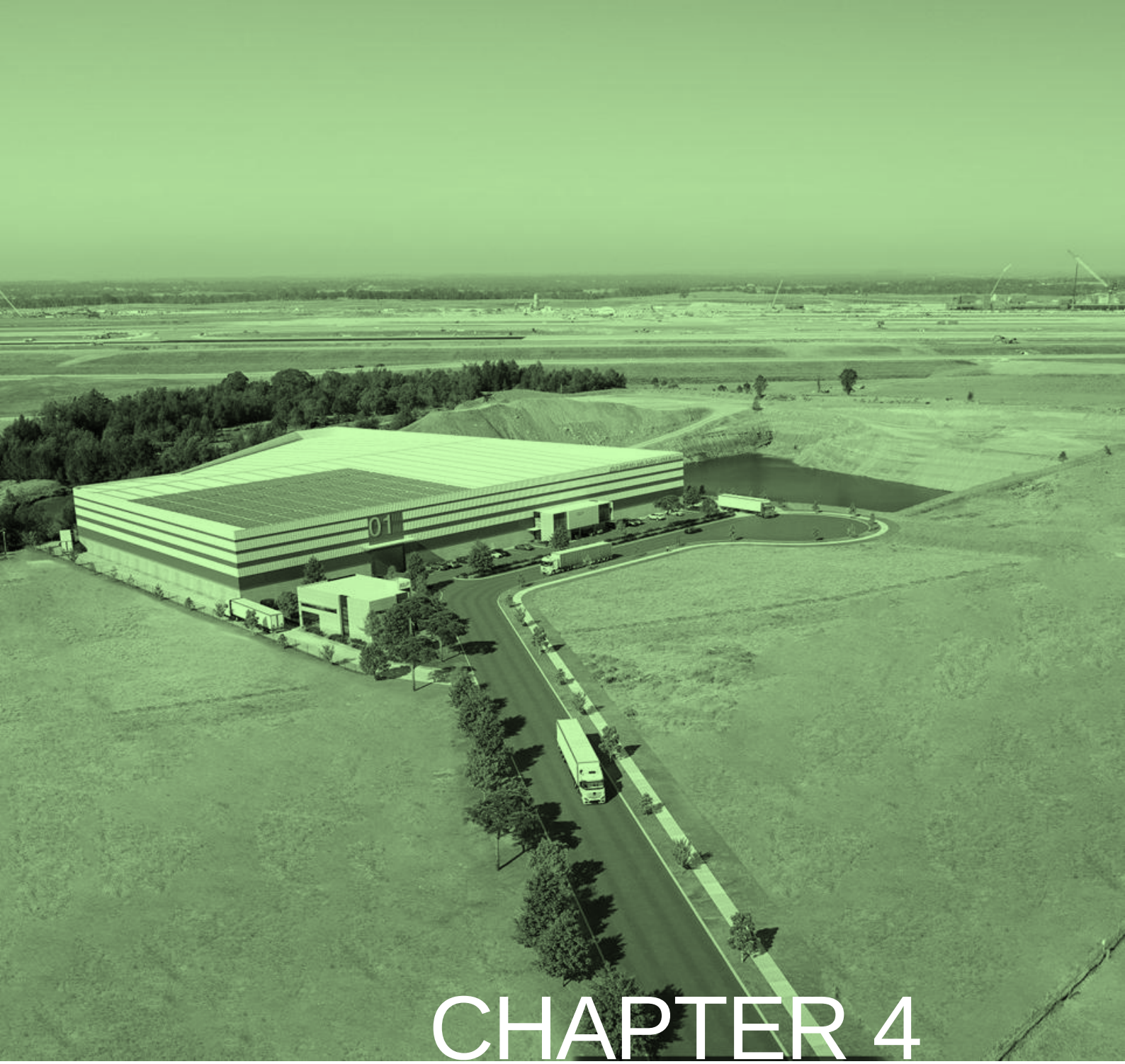
The Contractor's Construction Manager will ensure that all employees and contractors involved in the project are appropriately inducted and trained before commencing work on site. Training on environmental responsibilities and implementation of this CEMP will take place initially through the site induction and then on an ongoing basis through 'toolbox talks' (or similar).

All employees, contractors (and their sub-contractors) conducting environmental training and site staff assigning work activities will demonstrate that they are competent and appropriately trained to train and manage construction site-specific environmental issues. A register of all environmental training carried out, including dates, names of persons trained, and trainer name and qualification details, will be established and maintained for the duration of work.

Toolbox talks or similar will be held to identify environmental issues and controls when works commence in a new area of the site or a new activity and when environmental issues arise on site.

The toolbox talk will include but not be limited to:

- A description of the activity and the area.
- Identify the environmental issues and risks for the area (including fauna, flora or heritage).



CHAPTER 4

TRAINING AND AWARENESS

4 TRAINING AND AWARENESS

4.1 Overview

CPG recognises the importance of employee training and induction, and the critical role it plays in supporting the safe and environmentally responsible conduct of project operations.

CPG promotes the following:

- A person must not undertake an activity that pollutes, or might pollute, the environment unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm.
- In determining what activities are required to be taken, the following are considered (amongst other things):
    - The nature of the pollution or potential pollution and the sensitivity of the receiving environment.
    - The current state of technical knowledge and likelihood of successful application of the activities that might be taken.
    - The financial implications of the activities that might be taken, as those implications relate to the class of person undertaking activities of the same or a similar kind.

CPG manages project activities in such a manner as to:

- minimise impact to the environment; and
- educate personnel on their responsibilities relating to protecting the environment.

All personnel have environmental management responsibilities, and CPG ensures that these responsibilities are communicated to all personnel via appropriate environmental management training, including the initial environment induction.

4.2 Inductions

Environmental awareness training is provided to all personnel involved with the project, including all subcontractors and visitors, via inductions.

A project specific induction is delivered to all personnel and subcontractors highlighting the hazards specific to the site, and the controls necessary to manage them appropriately.

Personnel are re-inducted annually. The environmental component of the induction is tailored for each group of inductees (as applicable) to ensure that specific components of work are adequately addressed. This method of environmental awareness training ensures that all personnel are aware of:

- The importance of conformance with environmental policy and procedures and the requirements of the CEMP and associated sub-plans.
- The significant environmental aspects of the project works and the environmental benefits of improved work performance.
- Their roles and environmental responsibilities for achieving conformance with environmental policy and procedures and with the CEMP, including site emergency preparedness and response requirements.
- The potential consequences of departure from specified operating procedures.
- Airport safeguarding such as proper waste management to ensure that waste is inaccessible to birds and vermin, FOD management etc.

All personnel, including subcontractors, attend inductions prior to commencing work on the project. Records of inductions are recorded in the project's training matrix.

4.2.1 Induction and environmental training

The Project Manager will ensure that all employees and contractors involved in construction are appropriately inducted and trained prior to commencing work on site. Training regarding environmental responsibilities and implementation of this CEMP will take place initially through the site induction training and then on an ongoing basis through 'toolbox talks' (or similar).

The induction should cover all elements of the CEMP and include, as a minimum, the following:

- Purpose and objectives of the CEMP.
- Requirements of due diligence and duty of care.
- Conditions of any environmental licences, permits and approvals.
- Potential environmental emergencies on site and the emergency response procedures, locations and training in the use of emergency spill kits for spills on water and on land.
- Reporting, notification and management requirements for pollution, contamination and other environmental incidents, and for damage and maintenance to environmental controls.
- High-risk activities and associated environmental safeguards i.e. earthworks, night works, operation and maintenance of concrete washouts, and washing, refuelling and maintenance of plant and equipment.
- Working in or near environmentally sensitive areas.
- Site-specific issues including:
    - Erosion and sediment controls, water quality controls and sediment basin management (Section 3.1.4 and Appendix D).
    - Restricted access to the no-go zones shown on the environmental control map.
    - Responsibilities under the NSW *National Parks and Wildlife Act 1974*, including the need to cease work immediately and report any object of potential Aboriginal heritage unearthed during ground disturbance (Section 3.1.9).
    - Noise management controls (Appendix C) and air quality management controls (Section 3.1.5).
    - Traffic controls to maintain surrounding property access for residences and businesses and to minimise disruptions to these properties for the duration of construction (Appendix J).
- Incident management processes (Section 6.2).
- Airport safeguarding such as proper waste management to ensure that waste is inaccessible to birds and vermin, FOD management (Section 3.1.5).

Toolbox talks will be held to identify environmental issues and controls when works commence in a new area of the site or a new activity, as well as when environmental issues arise on site. The toolbox talk will include but not be limited to:

- A description of the activity and the area.
- Identification of the environmental issues and risks for the area.
- Outline the mitigations measures for the works and the area (Section 3.1).

Daily pre-start meetings will refresh knowledge of environmental management requirements onsite (waste, FOD, mad tracking, noise, erosion and sediment controls, dust, wildlife and ect.).

4.2.2 Visitor inductions

Subcontractors that attend site on an intermittent basis, e.g. a delivery driver, are typically inducted on a visitor basis. Subcontractors are assessed by the relevant member of the project

team on a case-by-case situation to determine if a subcontractor is required to undertake a visitor induction or full site induction.

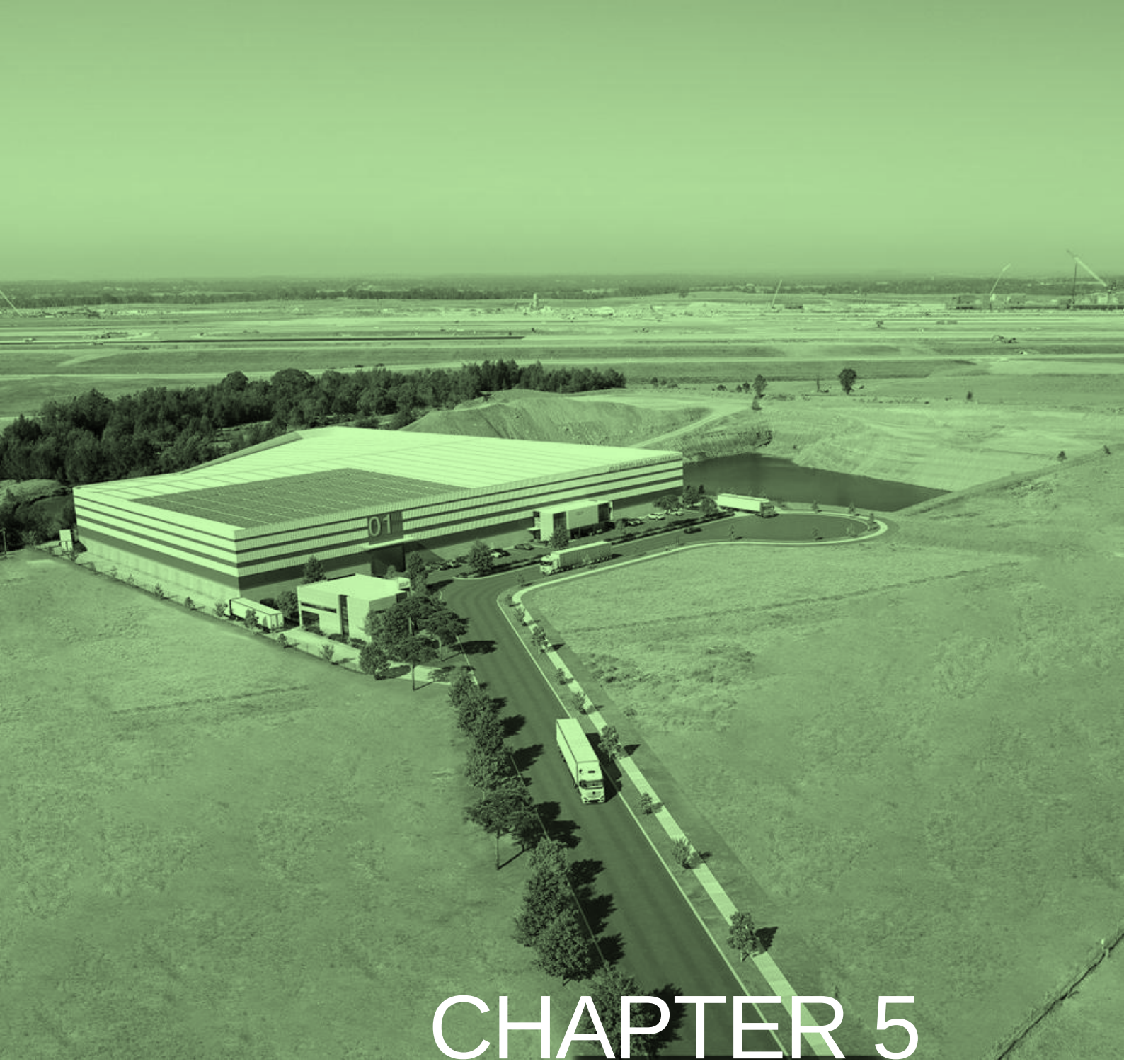
A visitor induction is valid for a period of 2 weeks.

4.3 Training

Employee training and competency requirements are reviewed annually, or as an employee's role changes.

CPG or its contractor will maintain a database of training records and employee competencies that provides capabilities such as tracking expiry of time limited competencies and programming of training requirements.

Personnel who undertake activities with significant environmental risk complete specialist environmental training, which is conducted by the head civil contractor on behalf of CPG, in addition to the environmental induction.



CHAPTER 5
COMMUNITY CONSULTATION

5 COMMUNITY CONSULTATION

5.1 Communications

Achieving effective communication between all parties is critical to ensure that the requirements of this CEMP are met.

CPG and their appointed contractor will use a number of methods to communicate with employees, subcontractors, and visitors. For further details please refer to the community consultation plan (CCP) in Appendix H.

Typical methods of communication on-site include:

- Pre-start meetings.
- Pre-commencement toolbox talks.
- Project inductions.
- Noticeboards.
- Toolbox talks.
- Environment alerts.

Pre-start and toolbox meetings should include delivering key environmental messages, audit and inspection results and communicating environmental risks for the scheduled activities.

Attendance at pre-start meetings is recorded and these records are saved on the CPG server.

5.2 External communication

5.2.1 Consultation manager

The Consultation Manager will:

- lead a program of communication activities for informing the community on construction activities and potential disturbances
- manage the handling of enquiries and complaints in line with the complaint handling procedure
- work closely with the technical streams and construction management team to ensure known stakeholder requirements are proactively considered when developing program sequencing, design and construction methodology and operations interfaces
- manage the maintenance of stakeholder database and contribute to reporting requirements.

The consultation manager will lead communication and engagement activities with support and guidance from the Project Manager and other team members as required.

5.2.2 Stakeholders

Primary stakeholders during construction will comprise the following immediate neighbours:

- Endeavour Energy.
- Sydney Water.
- Western Sydney Airport Corporation.
- Sensitive receivers along the construction access/egress routes (see CCP for further details).
- Hubertus Country Club.

5.2.3 Community Consultation Plan (CCP)

The ARRC will be guided by the CPG Community Consultation Plan (CCP), with a designated Consultation Manager (CM) responsible for managing all project-related contact and correspondence with stakeholders and the community. The CM will:

- record all contacts with stakeholders and the community, and the actions resulting from these contacts
- track the progress and closeout of enquiries and complaints
- identify trending issues and opportunities, enabling the implementation of mitigation strategies and continual improvement
- maintain accurate contact details of stakeholders
- prepare monthly reports to the CPG management on communications activities.

5.2.4 Communications information

Prior to major site establishment, CPG or its contractor will provide information to neighbours regarding current and upcoming construction activities and possible disturbances, including:

- a program of construction activities.
- scheduling.
- details of mitigation measures to minimise impacts.

The CPG appointed contractor will provide neighbours with 24-hour contact details.

5.2.5 Information channels

The project phone number, email and direct mail address will allow neighbours to gain information about the project and raise any concerns. Enquiries and complaints provide important feedback to improve project processes and mitigation measures to enhance mitigation measures.

These numbers and contact details will be included in all notifications, signage and advertisements relating to construction activities.

5.2.6 Meetings with stakeholders

CPG will coordinate engagement activities with key stakeholders and the community if required. Meetings or briefings with stakeholders may be organised to discuss construction activities, including scope, out-of-hours work, disruption to traffic or access, and any other issues resulting from the Project. Suitable or specialist people will be available to attend these meetings.

Relevant material will be presented and/or distributed at these meetings

5.2.7 Notifications

Notifications will provide details on construction activities that could impact stakeholders, including the commencement of construction, significant milestones, changes to scope, night works, changes to traffic conditions, pedestrian routes, cycleways, and public transport routes, out-of-hours work, disruption to accesses or utilities, and any investigation activities.

Table 5.1 provides channels for all community notifications for the Project's .

Table 5.1 Channels for stakeholders to submit inquiries

Community	
Email:	info@luddenhamrecycling.com.au
Community contact line:	1800 403 265
Postal address:	Level 5, 2 Grosvenor Street Bondi Junction NSW 2022
Project website:	https://luddenhamrecycling.com.au/

5.2.8 Media and government relations

CPG and their appointed contractors will implement the following protocols if contacted by the media or a government representative:

- Ensure no statement (written, verbal, or photograph) regarding the Project is provided to media or government representatives without the prior written approval of CPG executive management.
- Do not permit media or government representatives onsite without written approval from CPG executive management.

5.2.9 Access to information

At least 48 hours before the commencement of construction CPG will:

1. make the following information and documents (as they are obtained or approved) publicly available on its website:

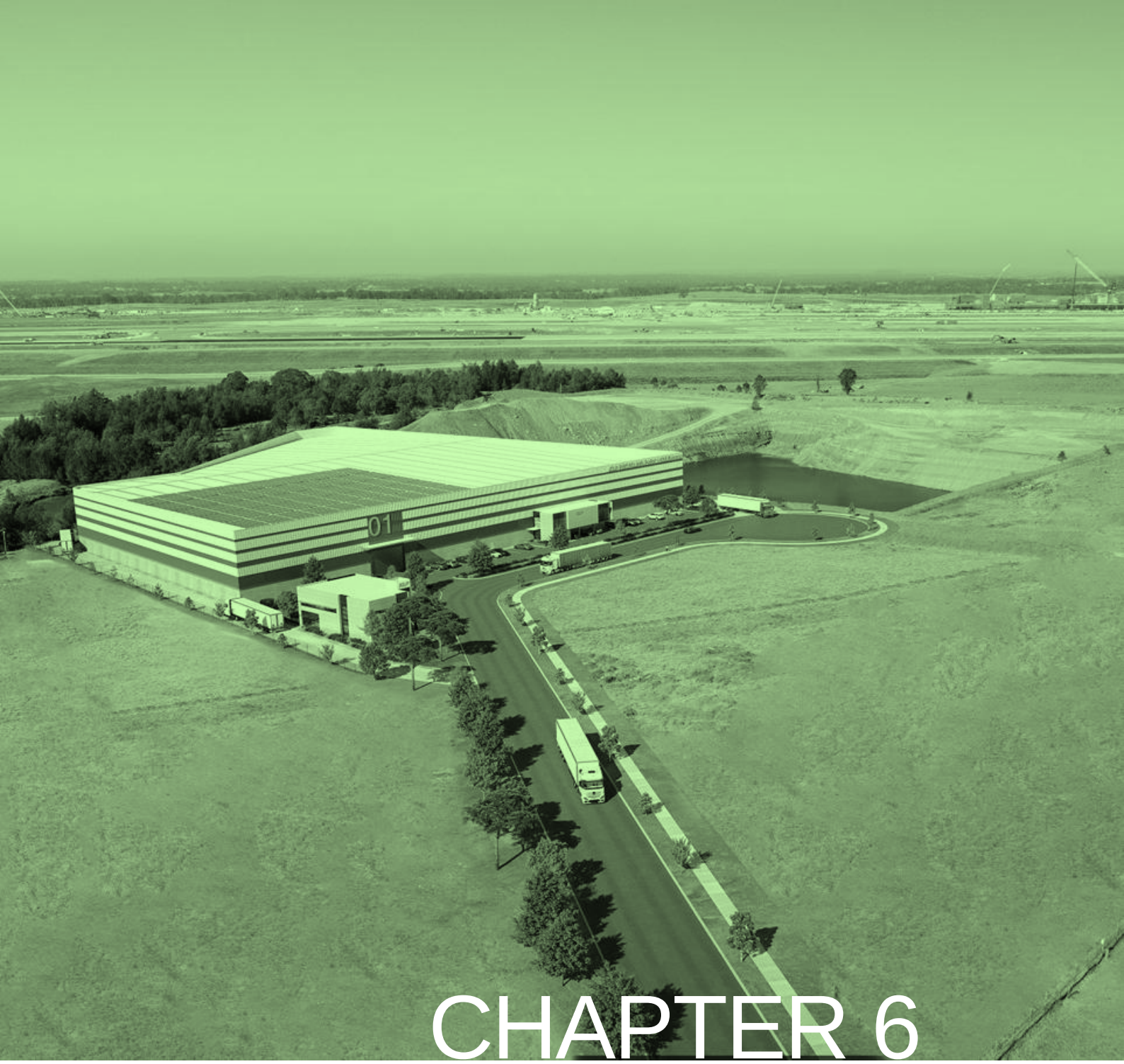
    a. the documents referred to in condition A2 of the consent;
    b. all current statutory approvals for the development;
    c. all approved strategies, plans and programs required under the conditions of the consent;
    d. the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged;
    e. regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of the consent;
    f. a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
    g. a summary of the current stage and progress of the development;
    h. contact details to enquire about the development or to make a complaint;
    i. a complaints register, updated monthly;
    j. any other matter required by the Planning Secretary; and

2. keep such information up to date, to the satisfaction of the Planning Secretary.

5.2.10 Monitoring, evaluation and reporting

The effectiveness of the project's communications activities will be monitored and evaluated monthly. The CCP database management system will be used as the main reporting and monitoring tools for the communication activities. The following table provides the frequency of the reporting activity to be undertaken.

Frequency	Monitoring, evaluation and reporting
Monthly	▪ Community construction updates, ▪ Monthly report and updates to CPG management team.
As required	▪ Community and stakeholder meetings and minutes. ▪ Surveys and feedback received from community and stakeholders.



CHAPTER 6

MONITORING AND CORRECTIVE ACTION

6 AUDITING, MONITORING, INCIDENT RESPONSE AND COMPLIANCE

6.1 Audits and review

Audits are a key component of the project's environmental management system. Two types of audits will be conducted to ensure compliance with the CEMP and environmental obligations:

1. Internal audits – Conducted by CPG, its construction contractor, or subcontractors.
2. External independent audits – Conducted by an independent environmental auditor endorsed by DPHI.

6.1.1 Internal audits

CPG and its construction contractor will conduct internal environmental audits to ensure the ongoing adequacy and effectiveness of the CEMP and to facilitate continuous improvement. Internal audits will:

- Verify compliance with environmental legislation, approval conditions, and management plans.
- Assess the implementation and effectiveness of environmental controls.
- Identify any non-conformances and ensure corrective actions are implemented.
- Be conducted every six months during construction.

Subcontractors are required to conduct internal audits of their work areas and operations, as outlined in their contracts. Compliance with internal audit requirements is a contractual obligation. Audit findings must be reported to the Contractor's Site Manager and Construction Manager for review and corrective action, if necessary.

In addition to planned internal audits, the project team verifies environmental conformance to the CEMP as per the reviews in Table 6.1

Table 6.1 Environmental reviews

Review	Objective	Frequency	Responsibility
Meteorology	Meteorological data, including rainfall, will be monitored. Monitoring will include: ▪ Temperature. ▪ Wind. ▪ Speed and direction. ▪ Dust.	▪ Daily	Contractor's Site Manager or Nominee
Solid wastes	▪ Recycling where practical and economically feasible. ▪ Appropriate use of landfill site for disposal. ▪ Appropriate placement and use of site amenities.	▪ Spot checks of recycling facilities. ▪ Informal daily and formal weekly inspections using the environmental inspection checklist.	Contractor's Site Manager or Nominee
Biodiversity	▪ Compliance with the project's biodiversity management measures (Section 3.4). ▪ Pests, vermin or noxious weeds are not present on site in sufficient numbers to pose an	▪ Informal daily inspections of the site to locate any fauna that may have become trapped, formal weekly inspections of the riparian corridor using the environmental inspection	Contractor's Site Manager

Review	Objective	Frequency	Responsibility
	environmental hazard or cause the loss of amenity in the surrounding area.	checklist. Weeds will need to be inspected.	
Erosion and sediment control measures	▪ Implementation, monitoring, and maintenance of all soil erosion and sediment control measures defined in Section 3.4 and the erosion and sediment control plan.	▪ Informal daily and formal weekly inspections using the environmental inspection checklist. ▪ Pre- and post-rainfall inspections. ▪ Water quality in the sediment basin is to be tested prior to discharge from the site.	Contractor's Site Manager
Worksite storage and handling of fuels, oils, chemicals, and paints	Compliance with dangerous substances regulations.	▪ Informal daily and formal weekly inspections using the environmental inspection checklist.	Contractor's Site Manager
Hydrocarbon and oil spills	▪ Minimal hydrocarbon and oil spills by use of a well-maintained construction plant and on-site refuelling protocols. ▪ All accidental spills are contained and don't pollute groundwater/ surface water. ▪ Compliance with management measures.	▪ Continuous monitoring. ▪ Spot checks of sites and weekly inspections using the environmental inspection checklist.	Contractor's Site Manager
Air quality and dust management	▪ No visible dust off-site. ▪ No dust complaints. ▪ Compliance with the management measures.	▪ Continuous monitoring. ▪ Spot checks of sites and weekly inspections using the environmental inspection checklist. Increased visual monitoring during windy and dry conditions.	Contractor's Site Manager
Noise and Vibration	▪ No noise complaints. ▪ Working within 30 meters of the residential buildings.	Following a complaint: ▪ Attended noise investigations will be undertaken in response to any formal complaint to verify that the noise is from construction activities at the site and to identify the source of the noise. ▪ Attended noise investigations will take place during the expected noisiest construction periods and be representative/ indicative of any impact across all potentially affected sensitive receivers. ▪ Vibration monitoring will be conducted for any vibratory works closer than 30 m to ensure compliance with B43 criteria	Contractor's Site Manager Noise Consultant
Traffic management	▪ No visible mud/ dirt being tracked onto public roads.	▪ Continuous monitoring.	Contractor's Site Manager

Review	Objective	Frequency	Responsibility
	▪ No complaints about construction heavy vehicles using the local road network. ▪ No complaints from neighbouring industrial premises about impacts to their property access/ egress.	▪ Weekly inspections using the environmental inspection checklist.	
Applicable impact mitigation strategies	Compliance with task-based risk assessment requirements and the CEMP and any relevant sub-plans.	▪ Informal daily and formal weekly use of the environmental inspection checklist.	Contractor's Site Manager
Housekeeping	▪ Tidy work site with no litter and all waste contained in appropriate containers. ▪ Containers to be emptied and disposed of at appropriate intervals. ▪ No waste leaving the site unmanaged/ accidentally, e.g. windblown waste or waste in stormwater runoff.	▪ Informal daily and formal weekly inspections using the environmental inspection checklist.	Contractor's Site Manager

6.1.2 External independent audits

In accordance with Condition C17, CPG must commission and pay for an Independent Environmental Audit of the project. These audits must:

- Be prepared per the Independent Audit Post Approval Requirements (Department 2020).
- Be led and conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Planning Secretary.
- Be documented in an Independent Audit Report and submitted to the satisfaction of the Planning Secretary within three months of commissioning the Audit (or within another timeframe agreed by the Planning Secretary).

In accordance with Condition C18, the Applicant must:

- Review and respond to each Independent Audit Report prepared under Condition C17.
- Submit the response to the Planning Secretary, Council, and any other NSW agency that requests it, along with a timetable for implementing the recommendations.
- Implement the recommendations to the satisfaction of the Planning Secretary.
- Make each Independent Audit Report and response publicly available no later than 60 days after submission to the Planning Secretary and notify the Planning Secretary in writing at least seven days before publication.

The first independent audit must commence within 12 weeks of construction. Subsequent audits must be conducted at intervals no greater than 26 weeks from the date of the initial Independent Audit unless otherwise agreed by the Planning Secretary. The results of these audits, along with any corrective actions and continuous improvement measures, will be reviewed during project meetings to ensure compliance and ongoing environmental performance enhancement.

6.2 Incident and environmental non-compliance

For the purposes of this CEMP, an 'incident' is defined according to the conditions of consent as an occurrence or set of circumstances that causes or threatens to cause material harm and which

may or may not lead to non-compliance. Material harm is further defined in the conditions of consent as:

- Harm that:

  a. involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or
  b. results in actual or potential loss or property damage of an amount (or amounts in aggregate) exceeding $10,000, including costs for measures to prevent, mitigate, or make good harm to the environment.

A 'non-compliance' is any occurrence, set of circumstances, or aspect of the development that constitutes a breach of the consent conditions.

Common types of environmental incidents include:

- Sewage spills (to land or to water).
- Hydrocarbon spills (to land or to water).
- Sediment discharge (to land or to water).
- Unexpected finds (cultural heritage).
- Damage to heritage items or protected flora and fauna.

Where detected, any non-compliance or environmental incident will be investigated. The non-compliance is corrected as soon as possible, and necessary action is taken to prevent recurrence.

All non-compliances are reported, and the corrective/ preventative actions to be taken and the close-out date are clearly identified.

6.2.1 Responsibility

The Project Manager is responsible for ensuring that the appropriate management response and handling procedures are instigated and carried through in the event of an incident and/or non-compliance. All employees, contractors and subcontractors are to:

- Notify the Project Manager of any hazard or potential hazard that may result in an incident and/or non-compliance, regardless of the nature or scale.
- Take immediate action (where it is safe to do so) to prevent, stop, contain and/or minimise any adverse impact associated with an incident and/or non-compliance.

Inductions and toolbox talks (as outlined in Chapter 4) will be used to ensure that all personnel are aware of and understand their obligations for incident and non-compliance response.

6.2.2 Notification requirements

Incident notification

According to Section 148 of the POEO Act and Condition C11 of the conditions of consent, incidents causing or threatening material harm must be reported to the relevant authorities. When an incident occurs, the Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must provide the following details:

- SSD-10446; and
- Luddenham Resource Recovery Facility
- Location and nature of the incident.

Subsequent notification requirements must be provided, and reports submitted per the requirements set out in Appendix 3 of SSD-10446.

Notification responsibilities are outlined below:

1. **Duty of employees and contractors**

All employees, contractors, and individuals involved in project activities must immediately notify the Project Environment Manager for CPG upon becoming aware of any potential environmental incident. Notifications should include all relevant information, such as the nature, location, and potential impact of the incident.

2. Role of the Project Environment Manager for CPG

Upon receiving a notification, the Project Environment Manager will:

- Assess whether the incident meets the material harm threshold as per the POEO Act and conditions of consent.
- Notify the Planning Secretary via the Major Projects website immediately if material harm is determined, including:
  - Development name and application number.
  - Location and nature of the incident.
- Notify other relevant authorities as required, including:
  - The EPA is the primary regulatory authority.
  - Local Council (if the EPA is not the regulatory authority).
  - NSW Public Health Unit, SafeWork NSW, and Fire and Rescue NSW as appropriate.

Refer to Table 6.2 for a list of contacts.

Table 6.2 Agency contacts

Agency	Detail	Number
DPHI	Compliance Unit	1300 305 695 or 02 9228 6111 information@planning.nsw.gov.au
EPA	Environment Line	131 555 info@epa.nsw.gov.au
	Head office (Sydney)	02 9995 5000
	Report Pollution	131 555 or 9995 5555 info@epa.nsw.gov.au
Liverpool City Council	Main switchboard	1300 36 2170 lcc@liverpool.nsw.gov.au
NSW Public Health Unit	Western Sydney Local Health District	(02) 8890 5555
SafeWork NSW	Incident Notification Hotline	131 050 Select Option 3 to report a “Serious Incident or Fatality” – this will result in the incident being recorded and the appropriate person being contacted.
Emergency Services	NSW Police NSW Fire and Rescue NSW Ambulance Service	131 444 1300 729 579 Emergency: 000

3. Information for initial and follow-up notifications

Notifications to the authorities and the Planning Secretary should include:

- Location of the pollution incident or emergency.
- Nature and description of the incident.
- Contact details of the person reporting.

- Immediate actions taken and any assistance required.
- Additional information as required by Appendix 3 of the conditions of consent.

4. Incident Report

A detailed incident report will be submitted to the Planning Secretary within 30 days of the incident. This report will include:

- Summary of the incident.
- Investigation outcomes and identification of the cause.
- Corrective and preventative actions taken.
- Communication with stakeholders regarding the incident.

Non-Compliance Notification

For non-compliances with the conditions of consent, Condition C12 requires that the Planning Secretary be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of the non-compliance.

Per Condition C13, a non-compliance notification must include:

- Development and application number
- The condition(s) of consent that has been breached
- A description of how the development is non-compliant
- The reasons for non-compliance (if known) and the actions taken or planned to address it

As per Condition C14, if an incident has already been notified as a non-compliance, it does not need to be separately notified again.

6.2.3 Incidents and non-compliance procedure

The procedure outlined below will be followed upon becoming aware of an incident and/or non-compliance.

1. **Preventative action**

Where possible and safe to do so, immediate action will be taken to prevent, stop, contain and/or minimise the environmental impact of the incident and/or non-compliance.

In the unlikely event that an incident and/or non-compliance requires the evacuation of the site, actions will be completed per evacuation procedures. All employees and contractors are to be made aware of the location of emergency assembly areas through site inductions, signage and regular toolbox talks.

2. Assistance

If adequate internal resources are not available and the incident and/or non-compliance threatens public health, property or the environment, it is essential that Fire and Rescue NSW be contacted by telephoning 000 for emergency assistance.

Contacting Fire and Rescue NSW does not negate the notification requirements in Section 6.2.2.

3. Notify

Non-compliances will be notified per Section 6.2.2.

4. Investigate

Immediately investigate the cause of the incident and/or non-compliance.

5. Remedial action

Address the cause of the incident and/or non-compliance and mitigate any further environmental impact. In some instances, outside resources such as specialist contractors/consultants may be required.

6. Record

It is imperative that an honest assessment of the situation is carried out and documented to minimise the potential for similar events in the future. Every incident and non-compliance must be documented in a report and logged in the incident and non-compliance register. A copy of the completed report will be maintained for at least five years.

A detailed incident report be provided to the DPHI within 30 days of the incident occurring.

7. Preventative action

Once the incident and/or non-compliance has been suitably handled, appropriate measures will be identified and implemented to reduce the possibility of re-occurrence.

6.2.4 Incident and non-compliance register

An incidents and non-compliance register will be maintained during construction and will contain:

- A copy of the environmental incident and non-compliance notification requirements and procedure described above.
- Site evacuation procedures.
- A separate reference sheet containing the contact details for the contacts in Section 2.6 and the contact details for the regulatory authorities listed in Section 6.2.2.
- Blank hard copies of the incident report.
- Copies of all completed incident or non-compliance report are to be maintained for at least five years after the event to which they relate.

6.2.5 Minor environmental incidents

Minor environmental incidents may occur during this project and are anticipated as a common aspect of site activities. While consent conditions do not explicitly define "minor environmental incident," this classification is essential to distinguish between incidents that pose minimal environmental risk and those requiring formal notification.

A "minor environmental incident" is an event with no potential or actual material harm to the environment. This means the incident:

- Does not cause any significant or lasting environmental impact;
- Involves only trivial or easily reversible effects; and
- Falls below the thresholds outlined for "material harm" (i.e., does not affect health or safety, nor does it result in damages exceeding $10,000).

Examples of minor environmental incidents include:

- Temporary excessive dust observed by the project team that is promptly managed.
- A small, contained hydrocarbon spill that does not extend beyond the site boundary and is cleaned up immediately, leaving no residual on-site environmental impact.

These minor environmental incidents will be managed according to the process described in Section 6.2.3. However, unlike incidents meeting the criteria for material harm, there will be no requirement for government notification for minor incidents.

Minor environmental incidents will be logged in the incident register and reviewed during toolbox talks to ensure continuous improvement, even though they do not require formal notification. Importantly, minor incidents do not constitute a non-compliance with the development consent. This distinction allows for practical management of low-impact incidents without unnecessary escalation to government authorities.

6.3 Environmental complaints

The complaints procedure for recording, responding to and managing complaints is required under Condition B110. In the event of a third-party environmental complaint, the following steps will be taken:

- Record complaints as an incident.
- Investigate and verify complaints and assess if excessive off-site impacts have occurred.
- Implement corrective measures, including modification of methods and operational techniques to avoid recurrence or minimise ongoing adverse impacts.
- Complete monitoring/additional investigations to verify the adequacy of the recommendations, as required.
- Notify the complainant of actions taken.
- Continue to monitor activity if required.

All environmental complaints will be logged in the community contact database. If a complaint involves an environmental impact exceeding any specified limits, it will be escalated and treated as an incident.

6.3.1 Responsibility

Complaints handling is the responsibility of all team members who encounter the community and stakeholders. Any team member who receives a complaint should immediately refer it to the community engagement team. If the issue can be resolved immediately, the team member should resolve the issue and then provide the details of the interaction to the engagement team for recording in the contact database.

Otherwise, primary responsibility for complaints handling lies with the community and stakeholder engagement team who will:

- Receive and respond to all phone calls to the project number.
- Investigate and determine the source of a complaint immediately.
- Provide an acknowledgement of emailed complaints within one business day and provide a final response within 10 business days if the complaint cannot be resolved in the initial contact.
- Close out complaints within agreed time (with complainant).
- Escalate complaints in accordance with the complaints handling process and escalation processes
- Record all complaints on the community contact database within 24 hours.

A flowchart showing the path the team will take to manage complaints is presented in Figure 8.1 in Appendix H.

6.4 Environmental breach

Subcontractors found to be in breach of this CEMP are managed in accordance with the subcontract under which they have been engaged.

Employees who breach the requirements of this CEMP are managed in accordance with the project's employee relations management plan. Personnel found to be grossly negligent or commit an intentional environmental breach are removed from site and managed in accordance with the project's employee relations management plan.

6.5 Reporting

Environmental performance is reviewed and documented via minutes of scheduled project meetings, which utilise input from the Project Environmental Manager, Project Director, and Contractor's Construction Manager.

Environmental reporting requirements are in Table 6.3.

Table 6.3 Environmental reporting requirements

Requirement	Timing/frequency	CoC/CEMP reference	Responsibility
The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3 of Appendix A.	Within 24 hours	SSD 10446 Condition C11 CEMP section 6.3.2	CPG
Written incident notification requirements 1. A written incident notification addressing the requirements set out below must be submitted to the Planning Secretary via the Major Projects website within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under condition C11 or, having given such notification, subsequently forms the view that an incident has not occurred. 2. Written notification of an incident must: (c) identify the Development and application number; (d) provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident); (e) identify how the incident was detected; (f) identify when the applicant became aware of the incident; (g) identify any actual or potential non-compliance with conditions of consent; (h) describe what immediate steps were taken in relation to the incident; (i) identify further action(s) that will be taken in relation to the incident; and (j) identify a project contact for further communication regarding the incident.	Within 7 days	SSD 10466 Appendix 3 Incident notification and reporting requirements	CPG
Incident report requirements			
3. Within 30 days of the date on which the incident occurred or as otherwise agreed to by	Within 30 days	SSD 10466	CPG

Requirement	Timing/frequency	CoC/CEMP reference	Responsibility
the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested. 4. The Incident Report must include: (a) a summary of the incident; (b) outcomes of an incident investigation, including identification of the cause of the incident; (c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and (d) details of any communication with other stakeholders regarding the incident.		Appendix 3 Incident notification and reporting requirements	
Non-compliance notification			
The Planning Secretary must be notified in writing via the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.	Within 7 days of non-compliance incident	SSD 10466 Condition C12 CEMP section 6.3.2	CPG
A non-compliance notification must identify the Development and the application number for it, set out the condition of consent that the Development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.		SSD 10466 Condition C13 CEMP section 6.3.2	CPG
A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance		SSD 10466 Condition C14 Section 6.2	
A register of all complaints, incidents and non-compliances will be kept.	For at least 5 years after completion	Section 6.2.4	Construction Contractor CPG
Compliance Reporting			
Within six months after the commencement of Stage 1 Operations of the Development, and in the same month each subsequent year (or such other timing as agreed by the Planning Secretary), the Applicant must submit a Compliance Report to the Planning Secretary reviewing the environmental performance of the Development to the satisfaction of the Planning Secretary. Compliance Reports must be prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2020) and must also: (a) identify any trends in the monitoring data over the life of the Development; (b) identify any discrepancies between the predicted and actual impacts of the Development, and analyse the potential cause of any significant discrepancies; and (c) describe what measures will be implemented over the next year to improve the	Not applicable to the construction phase	SSD 10466 Condition C15 CEMP section	CPG

Requirement	Timing/frequency	CoC/CEMP reference	Responsibility
environmental performance of the Development.			
Independent Audit			
The Applicant must commission and pay the full cost of an Independent Environmental Audit (Audit) of the Development. Audits must: (a) be prepared in accordance with the Independent Audit Post Approval Requirements (Department 2020); (b) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Planning Secretary; and (c) be documented in an Independent Audit Report and submitted to the satisfaction of the Planning Secretary within three months of commissioning the Audit (or within another timeframe agreed by the Planning Secretary).	Within 12 weeks of the commencement of construction; At intervals, no greater than 26 weeks from the date of the initial Independent Audit or as otherwise agreed by the Secretary	SSD 10446 Condition C17 CEMP section 6.1	CPG
In accordance with the specific requirements in the Independent Audit Post Approval Requirements (Department 2020), the Applicant must: (a) review and respond to each Independent Audit Report prepared under condition C17 of this consent; (b) submit the response to the Planning Secretary, Council and any other NSW agency that requests it, together with a timetable for the implementation of the recommendations; (c) implement the recommendations to the satisfaction of the Planning Secretary; and (d) make each Independent Audit Report and response to it publicly available no later than 60 days after submission to the Planning Secretary and notify the Planning Secretary in writing at least 7 days before this is done.	Within 60 days after submission to DPHI	SSD 10466 Condition C18 CEMP	CPG
Other reporting			
Record environmental performance during regular management meetings and/or 'toolbox talks'. Items to be discussed and recorded include: ▪ Results of any monitoring. ▪ Any environmental incidents that have occurred during the previous period, including the management/ corrective actions. Any complaints that have been received during the previous period, including any management/ corrective actions.	Weekly	CEMP Section 4.2	Construction Contractor CPG
A copy of all environmental records will be maintained, including: ▪ Site environmental inspection reports. ▪ Environmental monitoring data. ▪ Internal and external audit reports. ▪ Reports of environmental incidents, environmental, associated actions taken, and follow-up actions. ▪ Minutes of management review meetings. ▪ Induction and training records.	For at least 5 years after completion	Best practice and CEMP sections 6, 4.2 and 4.3	Construction Contractor CPG

Requirement	Timing/frequency	CoC/CEMP reference	Responsibility
A Waste Management Register will be maintained and will include: ▪ Type of waste and its classification (according to the POEO Act and Waste Classification Guidelines). ▪ Quantities of waste, measured in tonnes. ▪ How and where the waste was reused, recycled, stockpiled or disposed of. ▪ Date when the waste was reused, recycled, stockpiled or disposed of. ▪ Name and waste transport licence (if applicable) of the transporter used.	Ongoing	Section 3.1.10	Construction Contractor CPG

6.6 Contingency plan

The table in Appendix G lists the actions to be implemented if inspections, monitoring and/or auditing indicate that the mitigation measures listed in Section 3.4 and the sub-plans are not effective in managing environmental impacts.

All Condition Amber and Condition Red occurrences will be recorded and discussed during the toolbox talks.

6.7 Environmental performance criteria

The installation and maintenance of physical environmental controls on site will be the responsibility of the Contractor. The environmental objectives and performance criteria described in Section 3 are addressed in the supporting management plans for key specific environmental aspects of the Project. The objectives and performance criteria have been developed based on Federal, State and Local Legislation, Development approvals and Project Scope Requirements. They guide management and mitigation measures that minimise impacts to identified environmental and social values, and guide performance, monitoring for the project are outlined in Table 6.4.

Table 6.4 Environmental performance criteria and monitoring

Environmental Aspects	Performance Criteria	Monitoring	Person Responsible	Frequency/ Timing
Aboriginal Cultural Heritage	Comply with the approved Aboriginal Cultural Heritage Management Plan (ACHMP). Follow contingency requirements set out within the approved ACHMP in the event of unexpected discovery of Aboriginal cultural heritage.	Site inspection to evidence the implementation the ACHMP.	Construction Contractor/ Site Supervisor Project Environmental Manager The ER (as required)	Weekly Site Inspection
	Minimise disturbance and loss of Aboriginal cultural heritage values. Treat Aboriginal cultural heritage items with respect having regard to their identified values and avoid any unnecessary impacts.	Observation	Construction Contractor	Ongoing during earthworks

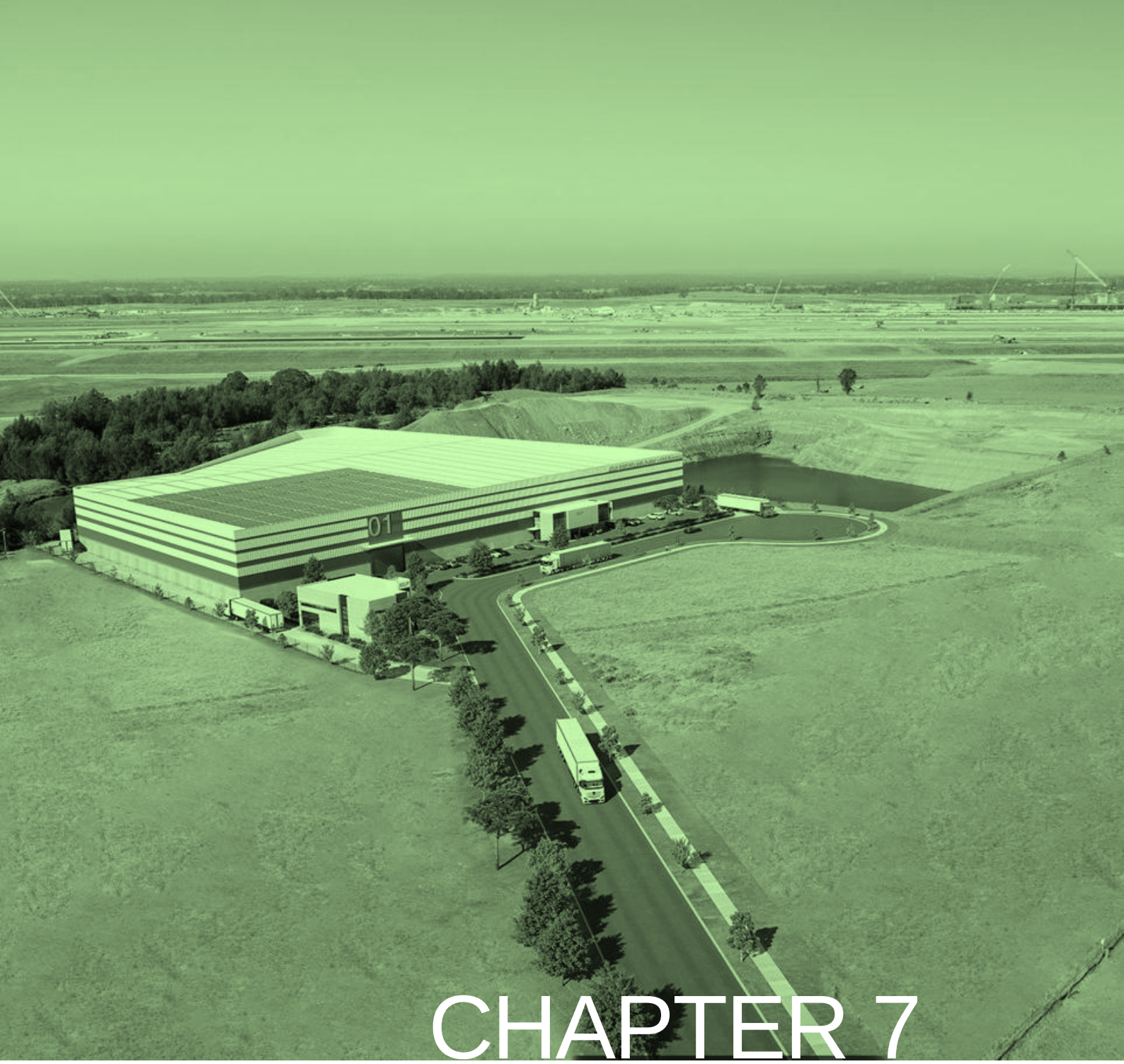
Environmental Aspects	Performance Criteria	Monitoring	Person Responsible	Frequency/ Timing
	Protect and conserve in situ Aboriginal cultural heritage items and sites located in the Oaky Creek riparian corridor (no-go zone, protective fencing around AHIMS#45-5-2280).	Site inspection to evidence the implementation	Construction Contractor/ Site Supervisor Project Environmental Manager The ER (as required)	Weekly Site Inspection
Soil and Water	Minimise erosion and sedimentation on site. Minimise impacts to surface water.	If rainfall events greater than 10mm (70% probability) are forecast within the next 24 hours, pre-rain inspection will be carried out to check adequacy of the installed erosion and sediment control. During periods of high rainfall monitor and maintain erosion and sediment controls frequently determine if further controls are required to increase effectiveness.	Construction Contractor/ Site Supervisor Project Environmental Manager	Pre-rain inspection During rain event Post-rain event
	Prevent sediment-laden water or material from site entering nearby environmental receptors including waterways, stormwater and vegetated areas.	Daily Observation	Construction Contractor Site Supervisor	Ongoing
	Report detailing events which occurred during dewatering and subsequent processes. All discharge to occur in accordance with the Sediment Basin Management and Dewatering Procedure.	Event Inspection	Construction Contractor/ Site Supervisor Project Environmental Manager	During dewatering
	Comply with the Erosion and Sediment Control Plan. Follow contingency requirements set out is section 6.6. of this plan.	Site inspection to evidence the implementation of the ESCP.	Construction Contractor/ Site Supervisor Project Environmental Manager The ER (as required)	Weekly Site Inspection
Biodiversity	Restrict native vegetation removal to only that identified for approval Minimise impacts to native vegetation and fauna.	Observation to evidence the implementation of the vegetation clearance protocol	Construction Contractor/ Site Supervisor Project Environmental Manager Ecologist	During clearing process Post - clearing

Environmental Aspects	Performance Criteria	Monitoring	Person Responsible	Frequency/ Timing
	Protection Zones for trees to be retained. Do not access the No-Go zone (the rehabilitated area).	Daily Observation	Construction Contractor Site Supervisor	Ongoing
	Implement measures to minimise wildlife attraction (e.g., netting basins, bird deterrents).	Daily Observation	Construction Contractor/ Site Supervisor in consultation with Ecologist	Ongoing
	Implement the BMP which includes weed management mitigation measures.	Site inspection to evidence the implementation of the BMP.	Construction Contractor/ Site Supervisor Project Environmental Manager The ER (as required)	Weekly Site Inspection
Noise and vibration	Implement noise and vibration control measures associated with construction in accordance with the CNVMP.	Site inspection to evidence the implementation the CNVMP.	Construction Contractor/ Site Supervisor Project Environmental Manager The ER (as required)	Weekly Site Inspection
	Follow contingency requirements set out within approved CNVMP in the event of non-compliance	Conduct noise monitoring in response to formal complaints.	Project Environmental Manager	When complaints received
	Minimise amenity impacts to local community/residents	Conduct noise monitoring.	Project Environmental Manager	When construction activities are identified as having a high likelihood of exceeding NMLs
	Regularly inspecting and maintaining plant and equipment to minimise noise and vibration level increases, to ensure that all noise and vibration reduction devices are operating effectively.	Daily Observation.	Construction Contractor/ Site Supervisor	Ongoing
	Vibratory works within 30 m from the building are prohibited unless monitoring confirms compliance with criteria outlined in the CNVMP.	Conduct Vibration monitoring to confirm compliance with vibratory limits.	Project Environmental Manager	Prior vibratory works within 30m from the building
Traffic and Transport	Implement CTMP.	Site inspection to evidence the implementation	Construction Contractor/	Weekly Site Inspection

Environmental Aspects	Performance Criteria	Monitoring	Person Responsible	Frequency/ Timing
	Minimise impacts to the local community and traffic flow.	of the CTMP	Site Supervisor Project Environmental Manager The ER (as required)	
	Implement the Drivers code of Conduct. The below activities in any vehicles will be considered as a breach of conduct: ▪ Reckless or dangerous driving causing injury or death. ▪ Driving whilst disqualified or not correctly licensed. ▪ Drinking or being under the influence of drugs while driving. ▪ Failing to stop after an incident. ▪ Loss of demerit points leading to suspension of licence. ▪ Any actions that warrant the suspension of a licence. ▪ Exceeding the speed limit in place on any permanent or temporary roads.	Daily Observation.	Construction Contractor/ Site Supervisor	Ongoing
	To ensure that the TGS are being implemented. Construction vehicle entry/egress suitability, with no queuing on the public road network at any time	Daily Observation.	Construction Contractor/ Site Supervisor	Ongoing
	To monitor vehicle arrival and departure schedules to ensure queuing remains strictly on-site.	Daily Observation.	Construction Contractor/ Site Supervisor	Ongoing
Construction Waste	Implement CWMP.	Site inspection to evidence the implementation of the CWMP	Construction Contractor/ Site Supervisor Project Environmental Manager The ER (as required)	Weekly Site Inspection
	Minimise generation of waste. Monitor waste levels and ensure diversion of materials from landfill where possible.	Daily observation	Construction Contractor/ Site Supervisor	Ongoing
	Implement on site controls for identified soil	Test any waste soil in accordance with a	Construction Contractor/	As required

Environmental Aspects	Performance Criteria	Monitoring	Person Responsible	Frequency/ Timing
	contamination and in accordance with EPA Guidelines relating to contamination.	Waste Classification Guideline and disposed of soil at appropriate licenced facilities if required.	Site Supervisor	
	Store lightweight materials securely and use containers with lids for packaging materials.	Daily observation	Construction Contractor/ Site Supervisor	Ongoing
	Use concrete washout bags or lined trap system for concrete washout	Daily observation	Construction Contractor/ Site Supervisor	Ongoing
	Manage food waste to prevent wildlife attraction	Daily observation	Construction Contractor/ Site Supervisor	Ongoing
Air Quality	Minimise the environmental impact and effect of the works on local community groups and WSA by implementing measure outlined in section 3.1.3 of this plan. Cessation of dust generating activities during adverse weather conditions (e.g. strong winds).	Site inspection to evidence the implementation of air quality mitigation measures.	Construction Contractor/ Site Supervisor Project Environmental Manager The ER (as required)	Weekly Site Inspection
	If visible dust is evident from the project area, review the use of dust suppression measures during periods of dry weather and implement more effective controls.	Daily observation	Construction Contractor/ Site Supervisor	Ongoing
	Land stabilisation works will be carried out progressively to minimise exposed surface	Daily observation	Construction Contractor/ Site Supervisor	Ongoing
	Double handling of material will be avoided wherever possible.	Daily observation	Construction Contractor/ Site Supervisor	Ongoing
Airport safeguarding	The building designs, including on fences will ensure that they minimise areas for wildlife, especially birds, to use for breeding, roosting, or perching	Review design of the ARRC and as built drawings following completion of construction.	Independent Certifier	Prior to construction Prior to occupation
	Building design to ensure lighting does not distract pilots, conditions are recommended requiring development lighting to comply with the requirements of the NASF Guideline E: Managing the Risk of Distractions to	Review design of the ARRC and as built drawings following completion of construction.	Independent Certifier	Prior to construction Prior to occupation

Environmental Aspects	Performance Criteria	Monitoring	Person Responsible	Frequency/ Timing
	Pilots from Lighting in the Vicinity of Airports.			
Hazards and Risk	Minimise the environmental impact and effect of the works on local community groups and WSA by implementing measure outlined in section 3.1.12 of this plan.	Site inspection to evidence the implementation of hazards and Risks mitigation measures.	Construction Contractor/ Site Supervisor Project Environmental Manager The ER (as required)	Weekly Site Inspection
	All chemicals, fuels, and oils will be stored within a bunded area with a capacity of at least 110% of the largest single stored container to ensure any potential leaks or spills are contained, minimising impacts on surface water and fire risks.			



CHAPTER 7

CEMP REVIEW

7 CEMP REVIEW

Review of the CEMP and Supplementary Management Plans will be undertaken at least every 6 months. The inputs to the management review process will include (but not be limited to):

- Internal and external audit findings.
- Incident management, investigation of non-conformance events, incidents, near misses and complaints received.
- Implementation of all compliance and legislative changes as identified at a corporate level.
- Training and awareness effectiveness.
- Monitoring results.
- Analysis of any significant discrepancies between the predicted and actual environmental impacts.

Condition C9 of SSD-10446 also states that all strategies, plans, and programs required under SSD-10446 will be reviewed and Planning Secretary notified of the review within three months of:

- the submission of a Compliance Report under condition C15;
- the submission of an incident report under condition C11;
- the submission of an Independent Audit under condition C17;
- the approval of any modification of the conditions of this consent; or
- the issue of a direction of the Planning Secretary under condition A2(b) which requires a review.

This CEMP and all relevant strategies, plans and programs will also be reviewed and, if necessary, revised in the following circumstances:

- Where there is any change to the scope of the construction activities and/or disturbance footprint.
- Where it is identified that the environmental performance is not meeting the objectives of the CEMP.
- At the request of a relevant regulatory authority.

Notwithstanding the review requirements outlined above, in accordance with the requirements of Conditions C1 and C10 the following is provided as the protocol for periodic review of this CEMP and all management plans required under SSD-10446.

During high-risk construction phases (such as bulk earthworks and foundation works), the Project Environment Manager or Environmental Representative may conduct additional reviews at their discretion.

Any updates to the plan will be approved internally by CPG project management. Then, the CEMP will be provided to the ER for review and comment. Once the ER has endorsed the updates, the CEMP will be submitted to the Planning Secretary for approval.

All CEMP revisions will be formally documented, with a version control log maintained to track changes, review dates, and approvals.

All employees and contractors will be informed of any revisions to the CEMP by the Contractor's Project Manager during toolbox talks. In accordance with Conditions A 21 of SSD-10446, CPG may, at their discretion, seek to stage, combine, or update strategies, plans or programs required under SSD-10446. In this instance, CPG, with the approval of the Planning Secretary, may:

(a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, relationship of the stage to any future stages and the trigger for updating the strategy, plan, or program).

(b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined).

(c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).

Conditions A22 and A23 of SSD-10446 further outline the requirements of consultation with the Planning Secretary.

APPENDIX A

DEVELOPMENT CONSENT SSD 10446

APPENDIX B

UNEXPECTED CONTAMINATION FINDS PROTOCOL

APPENDIX B – UNEXPECTED CONTAMINATION PROCEDURE

This Unexpected Contamination Procedure is a component of the Construction Environmental Management Plan (CEMP) for the project, in compliance with Condition B103 and Condition C2.

Procedure

During excavation works, there is the potential of encountering unexpected in-ground contamination. Unexpected contamination may include (but not be limited to):

- Asbestos-containing materials.
- Buried building rubble.
- Unusual soil staining and discolouration.
- Odours emanating from the ground during earthworks.

Where unexpected finds are uncovered:

- Works are to cease immediately in the vicinity of the excavation.
- The site supervisor is to be informed immediately.
- If deemed necessary the area surrounding the unexpected find is to be barricaded to ensure the area is not further disturbed.
- If required a suitably qualified environmental specialist is to visit the site, assess the discovery and undertake assessment/provide recommendations.
- **Hold Point:** Before any unexpected contaminated material is removed from the site, results of any associated testing and details of the intended disposal location must be submitted to the Planning Secretary. No removal of contaminated material is permitted until this information has been reviewed and acknowledged by the Planning Secretary in compliance with Condition B103.

The environmental specialist is to advise on the required course of action for the unexpected contamination; this may include:

- Sample collection and analysis.
- A detailed assessment (if required).
- Preparation of an assessment report and remediation plan (if required).

All reports are to be prepared in accordance with relevant NSW EPA guidance and provided to relevant regulatory/approval authorities and CPG for record-keeping requirements.

Where analysis of unexpected contamination indicates a potential risk to either human health and/or the environment, a task specific works plan (as detailed below) may be prepared. The plan is to be developed to outline task specific procedures/processes to be adopted to minimise the risk to human health and/or the environment from any unexpected contamination.

Task-specific works plan

If suspected contamination is encountered, the construction contractor will ensure a task-specific work plan is prepared by a suitably qualified environmental professional to ensure all environmental risks are appropriately managed.

1. The works plan should be prepared for the specific works to be undertaken.
2. The works plan should be prepared in accordance with industry best practice standards at the time of work and must comply with all relevant NSW EPA regulatory guideline criteria relating to contaminated sites.

The plans should include (but not be limited to) the following details:

- Risks to human health and the environment – potential risks associated with the work should be highlighted.
- General site management – details of required inductions of employees or contractors.
- Procedures and methods to be used for undertaking the works.
- Specific details of ways to limit disturbance of impacted soils/groundwater/redundant site drainage infrastructure, etc.
- Mitigation measures.
- Air/dust monitoring action levels, including monitoring procedures for lower explosive limit and volatile organic compounds around areas of residual hydrocarbon impacts.
- Personal protective equipment.
- Other protection measures (cabin ventilation, etc.).
- Roles and responsibilities for implementing the mitigation measures.
- Soil and groundwater management controls – as a minimum, the following requirements should be detailed:

    - Any groundwater extracted during intrusive works is to be disposed of in accordance with NSW EPA waste disposal guidance.
    - Excavated soils should be placed in a bunded area to minimise potential runoff.
    - Excavated concrete containing asbestos formwork should be covered following excavation to prevent wind-blown emissions of potential asbestos.
    - Soil / concrete material should be kept moist to limit dust.
    - Excavated materials, where possible, be replaced in the same location. Where this is not practical, the material must be disposed of in accordance with NSW EPA waste disposal regulations and the POEO Act.
    - Excavated concrete materials containing asbestos formwork are not to be replaced on the site and are to be disposed of offsite in accordance with NSW waste disposal requirements at the time of work.

- Reinstatement of the site surface.
- Waste management, including waste disposal.
- Record keeping, audit and review.

Emergency response

In the event of any incident, the first priority shall be the safety of all personnel and the community in the immediate vicinity.

In the event of a serious emergency at the site, the following procedure will be followed:

1. Stop work.
2. All personnel shall leave the work zone via established entry/exit routes.
3. Leave the site and assemble at the emergency assembly area (as designated by the project manager).
4. Await further instructions from the designated project manager. No project personnel or visitors are to leave the assembly area unless advised to do so by the project manager or their onsite representative to be nominated at a later stage.

The project manager or their designated entity will notify the relevant service as to the details regarding any emergency.

Following emergency response, all practical steps should be taken to minimise the risk of further environmental damage as soon as possible after the event. The situation should be stabilised by following the appropriate incident management or contingency plan procedures. The appropriate staff should be notified, and emergency procedures should be enacted.

Typical first-response actions may include:

1. Assessment of vapour concentrations/asbestos fibre counts from air monitoring in excavation areas and associated risk to human health.
2. Temporary repair or isolation of failed plant/equipment components.
3. Sampling of impacted site media, be it soil, groundwater and/or surface water.

Follow-up action will include the development of a work plan to remediate or manage the impacted site media. The work plan would detail any sampling and analysis requirements to define the nature and extent of impact, methods for the recovery, handling, storage and treatment of impacted material, disposal and/or reuse options for impacted material and personal protective equipment requirements.

Records will be kept of any incidents, accidents, hazardous situations, unusual events and unsafe health exposures and the corrective action taken. Where necessary, this procedure should be updated based on findings of corrective actions/improvements etc.

Reporting

Reporting in relation to unexpected contamination is summarised in Table B.7.1.

Table B.7.1

Report	Requirement
Material classification reports	▪ All reports relating to unexpected contamination are to be kept by CPG upon completion of works. ▪ Reports are to include detailed laboratory analysis and subsequent classification information and materials tracking information detailing the total volume and final placement/disposal location.
Non-conformance reporting	▪ Non-conformances will be recorded in a non-conformance and corrective action report. Details of the non-conformance, including any immediate corrective actions undertaken, are to be recorded by the operational staff. ▪ It is the responsibility of the project manager to immediately initiate corrective actions if required. Once completed, the site supervisor/foreman will provide details of the actions undertaken on the non-conformance report and sign, date and file the report.
Submission of testing results and disposal details	▪ Where contaminated material is identified, the final disposal location and results of any associated testing will be submitted to the Planning Secretary prior to the removal of the contaminated material from the site. This is to ensure compliance with Condition B103.
Incident reporting	▪ Records will be kept of any environmental incidents, accidents, hazardous situations, unusual events and unsafe health exposures and the corrective action taken. ▪ The project manager will adequately investigate the cause of any incident so that necessary changes in work practices can be made to prevent the incident from recurring.
Performance monitoring	This procedure should be reviewed by CPG after incidents or reported findings to ensure that: ▪ Information and environmental management strategies remain current. ▪ Any opportunities for improvement are identified. ▪ Changes to legislation, licence and approval conditions are identified and complied with. The assessment should take into account all changes such as (but not limited to): ▪ Changes to site conditions. ▪ Work requirements. ▪ Legislation. ▪ Environmental condition.

APPENDIX C

CONSTRUCTION NOISE AND VIBRATION MANAGEMENT PLAN

APPENDIX D

EROSION AND SEDIMENT CONTROL PLAN

APPENDIX E

CONSTRUCTION WASTE MANAGEMENT

APPENDIX F

ABORIGINAL CULTURAL HERITAGE MANAGEMENT PLAN

APPENDIX G

CONTINGENCY PLAN

APPENDIX G – CONTINGENCY MANAGEMENT PLAN

Item	Trigger/ response	Condition		
		Green	Amber	Red
Noise impacts at sensitive receivers	Trigger	▪ Noise levels do not exceed applicable NMLs.	▪ Noise levels exceed applicable NMLs.	▪ Noise levels exceed highly noise affected criteria (75 dBA).
	Response	▪ Ongoing best practice management measures to minimise noise emissions.	▪ Implement all feasible and reasonable mitigation and management measures to minimise noise impacts.	▪ Implement all feasible and reasonable mitigation and management measures to ensure noise levels are below highly noise affected criteria. ▪ If noise levels cannot be kept below applicable limits, then a different construction method or equipment will be utilised or respite periods will be implemented by restricting the hours that the very noisy activities can occur.
Visible dust leaving the site	Trigger	▪ No visible dust leaving the site during daily inspections.	▪ Visible dust leaving the site during daily inspections.	▪ There is visible dust leaving the site multiple times during a day OR from multiple locations within the site.
	Response	▪ Continue monitoring program as normal.	▪ Review and investigate construction activities and respective control measures, where appropriate. Implement additional remedial measures, such as deploying additional water trucks etc.	▪ Investigate dust generating activities, and if necessary, temporarily halt them.
Queuing	Trigger	▪ No queuing identified	▪ Queuing identified within site.	▪ Queuing identified on the public road.
	Response	▪ No response required. ▪ Continue monitoring program.	▪ Review the construction delivery schedule. If drivers are not following the correct schedule, then they should be provided with additional training and an extra copy of the driver code of conduct.	▪ Review and investigate construction activities. If it is concluded that construction activities are directly responsible for queuing on public roads, implement additional control measures such as: ▪ Put a temporary hold on incoming heavy vehicle deliveries. ▪ Review CTMP and update where necessary. ▪ Provide additional training.

Item	Trigger/ response	Condition		
		Green	Amber	Red
Traffic Guidance Scheme	Trigger	▪ No observable issues (TGS implements according to plan)	▪ Minor inconsistencies with TGS to onsite operations (such as covered signs, missing signs, fallen cones, etc.)	▪ Major failure in TGS implementation, or a near miss/incident occurs, regardless of or as a result of the TGS being implemented
	Response	▪ No response required. ▪ Continue monitoring program.	▪ Traffic Controller to amend TGS on site immediately and document all adjustments. ▪ Additional traffic control personnel deployed if required.	▪ Immediate halt of all site operations until an investigation is completed. ▪ TGS must be updated and revalidated to ensure full compliance with safety requirements. ▪ Emergency response coordination with TfNSW and relevant authorities if required.
Road obstruction	Trigger	▪ No obstructions on public roads or site access routes.	▪ Temporary obstruction due to minor site activity (e.g., parked vehicle, equipment movement).	▪ Major obstruction affecting traffic flow, emergency access, or public safety.
	Response	▪ Continue monitoring traffic conditions.	▪ Traffic controllers to clear obstruction immediately. ▪ Implement alternate routing or adjust delivery schedules.	▪ Emergency clearance measures initiated (e.g., vehicle removal, road reconfiguration). ▪ Temporary closure notification sent to authorities and stakeholders. ▪ Implement detour plan to maintain access.
Heavy vehicle breakdown	Trigger	▪ No vehicle breakdowns affecting traffic flow.	▪ A vehicle breaks down in a non-critical location but does not block site access or public roads.	▪ A vehicle breaks down in a critical location, obstructing site access or causing road congestion.
	Response	▪ Continue monitoring traffic conditions.	▪ Deploy on-site recovery assistance (e.g., mobile mechanic, tow support). ▪ Adjust delivery schedules as needed.	▪ Deploy emergency vehicle removal and implement detour routes. ▪ Notify TfNSW and relevant authorities if needed. ▪ Conduct incident review and update CTMP.
Erosion	Trigger	▪ No evidence of erosion.	▪ Minor gully or tunnel erosions present and/or rilling. Evidence of sediment or sediment laden water leaving the site.	▪ Significant gully or tunnel erosions present and/or rilling. Evidence of sediment or sediment laden water leaving the site.
	Response	▪ Continue CEMP and ESCP implementation.	▪ A suitably trained person to inspect the site. Review of erosion and sediment structures. Remediate as appropriate. Revise ESCP if required.	▪ A suitably trained person to inspect the site. Review of erosion and sediment structures. Remediate as soon as practical. Revise ESCP if required.

Item	Trigger/ response	Condition		
		Green	Amber	Red
Water management structures	Trigger	▪ Water management structures have been designed, constructed and managed in accordance with the Blue Book and the ESCP.	▪ Inspections indicate that water management structures illustrate minor non-compliance with the Blue Book and the ESCP.	▪ Inspections indicate a failure of the water management structures.
	Response	▪ Continue CEMP and ESCP implementation.	▪ A suitably trained person to inspect the site. Review of water management structures. Remediate as appropriate. Revise ESCP if required.	▪ A suitably trained person to inspect the site. Remediate as soon as practical. Review of engineering design and revise ESCP.
Heritage	Trigger	▪ No unknown heritage items uncovered.	▪ Potential heritage item uncovered.	▪ Potential heritage item uncovered causing significant delays to project.
	Response	▪ Continue CEMP implementation.	▪ Stop work and implement the unexpected finds protocol in Section 3.4.	▪ Stop work and implement the unexpected finds protocol in Section 3.4. Heritage item to be salvaged and removed from site by a qualified archaeologist, if requested by Heritage NSW.
Unexpected Contamination	Trigger	▪ No unexpected contamination uncovered during earthworks.	▪ Areas of possible unexpected contamination uncovered.	▪ Areas of unexpected contamination uncovered.
	Response	▪ Continue CEMP implementation.	▪ Stop work immediately and implement the unexpected contamination finds procedure (Appendix B).	▪ Stop work immediately and implement the unexpected contamination finds procedure (Appendix B).
Biodiversity - vegetation	Trigger	▪ No disturbance in retained vegetation or riparian corridor	▪ Minor disturbance in retained vegetation or riparian corridor. Evidence of ground cover impacts e.g. traffic, personnel access, stockpiling, erosion of sediment deposition.	▪ Significant disturbance of retained vegetation or riparian corridor. Evidence of clearing within no-go areas, significant erosion, contaminated material, or sediment-laden water.
	Response	▪ Continue CEMP and BMP implementation.	▪ A suitably qualified ecologist to inspect the site. Review of site management and erosion and sediment control. Remediate as appropriate. Revise BMP if required.	▪ Stop work in vicinity of the impact. A suitably qualified ecologist to inspect the site. Review of impacts. Remediate as soon as practical. Revise BMP if required.
Biodiversity – threatened fauna	Trigger	▪ No threatened or native fauna present in the impact area of the site.	▪ Inspections find threatened fauna present in the impact area of the site.	▪ Injury or death of threatened species or native fauna on site or caused by site works.
	Response	▪ Continue CEMP and BMP implementation.	▪ Stop work. Implement fauna protocol as per BMP section 4.6 and figure 4.2.	▪ Stop work. Implement fauna protocol as per BMP section 4.6 and figure 4.2.

Item	Trigger/ response	Condition		
		Green	Amber	Red
Aboriginal Heritage	Trigger	▪ No disturbance or riparian corridor or the 10m no-go zone of item 45-5-2280.	▪ Minor disturbance in riparian corridor and/or the 10m no-go zone of item 45-5-2280. Evidence of ground cover impacts e.g. traffic, personnel access, stockpiling, erosion of sediment deposition.	▪ Significant disturbance in riparian corridor and/or the 10m no-go zone of item 45-5-2280. Evidence of clearing within no-go areas, significant erosion, contaminated material, or trampling.
	Response	▪ Continue CEMP and BMP implementation.	▪ A suitably qualified specialist to inspect the site. Review of site management and erosion and sediment control. Remediate as appropriate. Revise ACHMP if required.	▪ Stop work in vicinity of the impact. A suitably qualified specialist to inspect the site. Review of impacts. Follow non-compliance procedure.
Aboriginal Heritage	Trigger	▪ No known Aboriginal Heritage items uncovered.	▪ Potential Aboriginal Heritage Item uncovered.	▪ Destruction of an unknown Aboriginal Heritage Item on site caused by site works.
	Response	▪ Continue CEMP and ACHMP implementation.	▪ Stop work. Implement unexpected find protocol.	▪ Stop work. Implement unexpected find protocol and non-compliance procedure.
Airport Safeguarding (Waste FOD)	Trigger	▪ No debris observed off-site	▪ Minor debris observed off-site (e.g., small packaging materials).	▪ Significant debris blown off-site (e.g., large materials).
	Response	▪ Continue normal operations.	▪ Notify the Site Supervisor, recover debris and dispose correctly. ▪ Increase litter patrols, secure storage areas, and toolbox work force.	▪ Stop work in affected areas, retrieve debris immediately, notify the Project Environment Manager and WSI authorities, and review storage methods.
Airport Safeguarding (Wildlife Hazard)	Trigger	▪ No change in birds in and around the site.	▪ Minor or temporary increase in bird numbers on or adjacent to site.	▪ Significant increase in bird numbers on or adjacent to site.
	Response	▪ Continue CEMP and BMP implementation.	▪ Review the efficacy of site controls as per section 4.7.	▪ Suitably qualified ecologist to be engaged to survey/monitor the species utilising the site and implement/modify existing control measures.
Waste quantities exceeding estimates	Trigger	▪ Waste quantities within estimated volumes.	▪ Waste quantities moderately exceed estimates (e.g., 10-20% over).	▪ Waste quantities significantly exceed estimates (e.g., >20% over), risking storage capacity or disposal arrangements.
	Response	▪ Continue normal waste management practices.	▪ Review waste generation processes, adjust storage and disposal plans, and update the Waste Management Plan.	▪ Stop activities generating excess waste, reassess waste management strategies, secure additional storage or disposal

Item	Trigger/ response	Condition		
		Green	Amber	Red
				options, and notify the Project Environment Manager.
Non-compliance with waste management procedures	Trigger	▪ Full compliance with waste management procedures.	▪ Minor non-compliance identified (e.g., incorrect segregation in one bin).	▪ Significant or repeated non-compliance (e.g., multiple instances of incorrect disposal, failure to classify waste).
	Response	▪ Continue monitoring.	▪ Correct the issue, toolbox workforce and increase supervision.	▪ Stop related activities, conduct a thorough investigation, implement corrective actions, retrain all staff, and notify the Project Environment Manager and DPHI if required.

APPENDIX H

COMMUNITY CONSULTATION PLAN

APPENDIX I

BIODIVERSITY MANAGEMENT PLAN

APPENDIX J

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

APPENDIX K

ENVIRONMENTAL CONTROL MAP

SYDNEY NEWCASTLE CENTRAL COAST MACKAY

elementenvironment.com.au

elementenvironment.com.au